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# BULLETIN BIBLIOGRAPHIQUE

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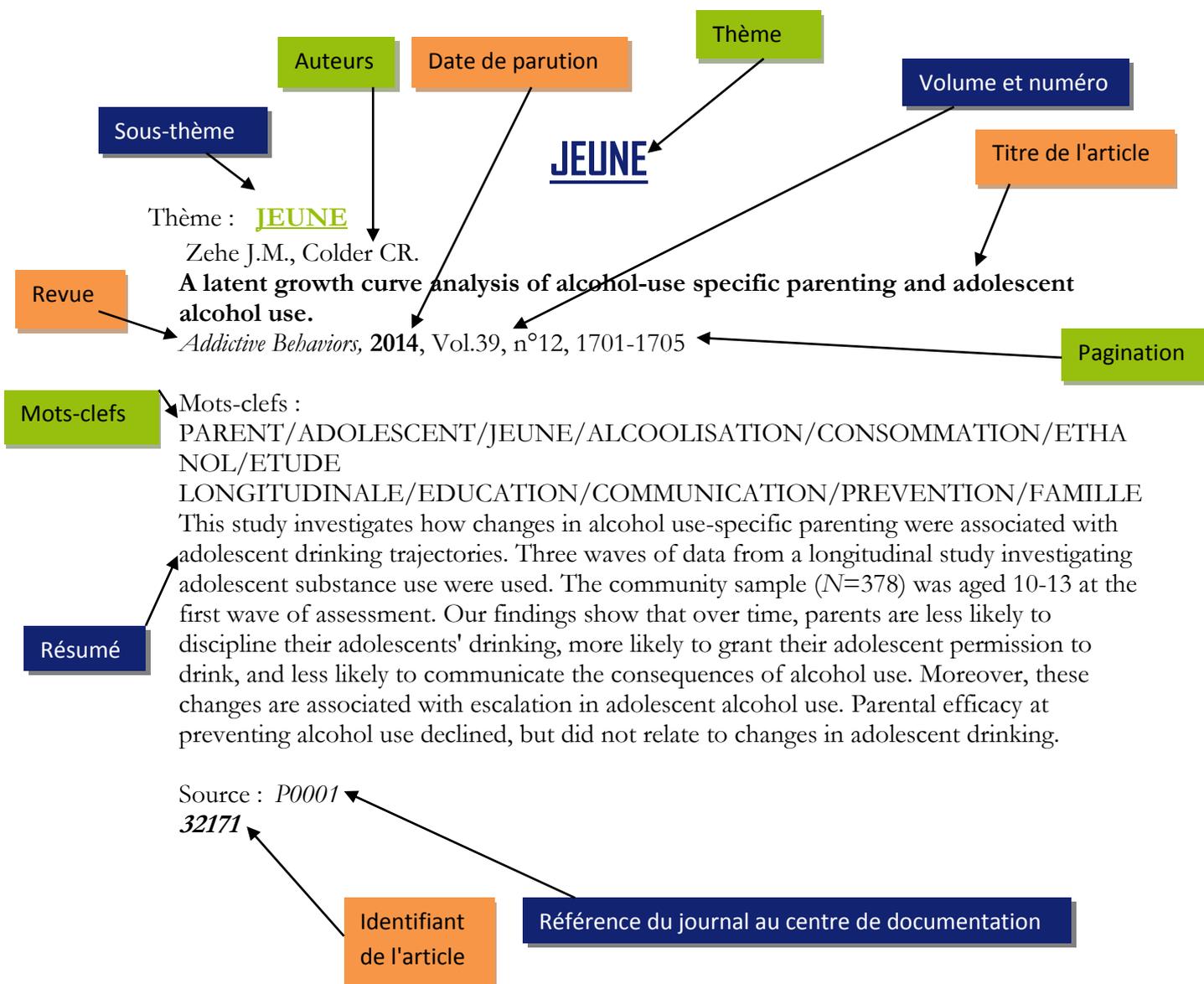
Le bulletin bibliographique de la Fondation pour la recherche en alcoologie à parution périodique, contient une bibliographie analytique des dernières acquisitions du centre de documentation ou dépouillement des dernières revues reçues. Les notices sont classées de façon arbitraire par thèmes.

D'autres types de documents (rapports, colloques, tirés à part, ouvrages individuels ou collectifs, thèses) sont également présentés.

Concernant les articles de périodiques, les résumés présentés sont les résumés d'auteurs. En revanche, certains résumés d'ouvrages ou de rapports sont rédigés au service de documentation de la Fondation pour la recherche en alcoologie.

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### Exemple de notice :



## **LISTE DES REVUES DONT LES ARTICLES SONT INDEXES**

Actualité et Dossier en Santé Publique  
Addiction ( ex Alcool ou Santé (ANPAA))  
Addiction Biology  
Addictive Behaviors  
Agora débats / jeunesses  
Alcohol \*  
Alcohol and Alcoholism \*  
Alcohol Research & Health (NIAAA) \*  
Alcoholism: Clinical and Experimental Research \*  
Alcoologie et Addictologie (SFA)  
Bulletin de l'O.I.V.  
Cahiers de Nutrition et de Diététique  
Contemporary Drug Problems  
Courrier des Addictions  
Dépendances (SFA/ISPA, Suisse)  
Journal of Studies on Alcohol and Drugs  
Psychology of Addictive Behaviors  
Revue d'Epidémiologie et de Santé Publique  
Revue des Œnologues  
Santé Publique  
Santé en Action

*\* Revues dont tous les articles sont indexés. Pour les autres revues, les articles sont sélectionnés en fonction de leur thématique.*

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Les articles de périodiques (revues) référencés dans ce bulletin sont issus de :

- ✓ Addiction : Vol.111, n°1 et 2
- ✓ Addiction Biology : Vol.20, n°5 et 6
- ✓ Alcohol : Vol.49, n°8
- ✓ Alcoholism: Clinical and Experimental Research : Vol.39, n°10
- ✓ Alcohol research : Current Reviews : Vol.37, n°2
- ✓ Alcoologie et Addictologie : Vol.37, n°4
- ✓ Courrier des Addictions (Le) : Vol.17, n°4
- ✓ Journal of Studies on Alcohol and Drugs : Vol.77, n°1
- ✓ Santé Publique : Vol.27, n°5 et 6

**Ce bulletin couvre la période du 26 janvier au 29 février 2016.**

Tous les documents indexés dans ce bulletin sont disponibles à la Fondation pour la recherche en alcoologie pour consultation.

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\* Il est entendu que certains documents concernent plusieurs thèmes à la fois. On ne peut classer le document que dans l'un des thèmes de manière relativement arbitraire.

## ALCOOL ET AUTRES SUBSTANCES

Thème : **ALCOOL ET AUTRES SUBSTANCES**

Ozburn A.R., Janowsky A.J., Crabbe J.C.

### **Commonalities and Distinctions Among Mechanisms of Addiction to Alcohol and Other Drugs.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1863-1877

Mots-clefs : CONSOMMATION

EXCESSIVE/ETHANOL/DROGUE/NEUROBIOLOGIE/CONSEQUENCE/ADDITION/MODELE ANIMAL/RONGEUR/AUTO-ADMINISTRATION/SUBSTANCE PSYCHOACTIVE/NICOTINE/GENETIQUE

Alcohol abuse is comorbid with abuse of many other drugs, some with similar pharmacology and others quite different. This leads to the hypothesis of an underlying, unitary dysfunctional neurobiological basis for substance abuse risk and consequences. In this review, we discuss commonalities and distinctions of addiction to alcohol and other drugs. We focus on recent advances in preclinical studies using rodent models of drug self-administration. While there are specific behavioral and molecular manifestations common to alcohol, psychostimulant, opioid, and nicotine dependence, attempts to propose a unifying theory of the addictions inevitably face details where distinctions are found among classes of drugs. For alcohol, versus other drugs of abuse, we discuss and compare advances in: (i) neurocircuitry important for the different stages of drug dependence; (ii) transcriptomics and genetical genomics; and (iii) enduring effects, noting in particular the contributions of behavioral genetics and animal models.

Source : P0004,  
33600

Thème : **ALCOOL ET AUTRES SUBSTANCES**

Shmulewitz D., Greene E.R., Hasin D.

### **Commonalities and Differences Across Substance Use Disorders: Phenomenological and Epidemiological Aspects.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1878-1900

Mots-clefs : SUBSTANCE PSYCHOACTIVE/DSM-IV/PSYCHOMETRIE/PHYSIOLOGIE/AGE DE DEBUT DE CONSOMMATION/BASE DE DONNEES/ETATS-UNIS/LITTERATURE/TOLERANCE/PREVALENCE/ETHANOL/CANNABIS/TABAGISME/HALLUCINOGENE/ANXIOLYTIQUE

Although psychoactive substances vary in many ways, they have important commonalities, particularly in their ability to lead to an addiction syndrome. The field lacks an updated review of the commonalities and differences in the phenomenology of alcohol, cannabis, tobacco, stimulants, opioids, hallucinogens, sedatives/tranquilizers, and inhalants and their related substance use disorders (SUDs). DSM-IV and DSM-5 SUD diagnostic criteria were reviewed, as was evidence from recent epidemiological and clinical research: psychometric studies (test-retest reliability, latent trait analysis); physiological indicators (tolerance, withdrawal); prevalence and age of onset. Information was incorporated from previous reviews, PubMed and Scopus literature searches, and data from large U.S. national surveys. Empirical evidence in the form of test-retest reliability and unidimensionality supports use

of the same DSM-IV dependence or DSM-5 SUD diagnostic criteria across substances. For most substances, the criteria sets were generally most informative in general population samples at moderate-to-severe levels of SUD. Across substances, 2 criteria (tolerance and use in hazardous situations) were identified as functioning differently in population subgroups. Since substances have different pharmacological effects, withdrawal is assessed using substance-specific symptoms, while tolerance is not; issues remain with the assessment of tolerance. Alcohol, tobacco, and cannabis were consistently identified as the substances with earliest onset of use, highest prevalence of lifetime use, and highest prevalence of lifetime disorder. Despite differences between psychoactive substances, the generic DSM criteria set appears equally applicable across substances. Additional studies of tolerance and hazardous use will be useful for future nosologies. Alcohol, cannabis, and tobacco are the substances with the greatest public health impact due to the high prevalence and early onset of their use, and the potential all 3 substances have to lead to addiction.

Source : P0004,  
33601

### Thème : **ALCOOL ET AUTRES SUBSTANCES**

Lin H.C., Jester J.M., Buu A.

#### **The Relationships of Cigarette and Alcohol Use With the Initiation, Reinitiation, and Persistence of Cannabis Use.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 113-120

Mots-clefs : AGE DE DEBUT DE

CONSOMMATION/CANNABIS/TABAGISME/ETHANOL/FREQUENCE DE  
CONSOMMATION/FACTEUR PREDICTIF/EPIDEMIOLOGIE/ETUDE DE  
COHORTE/INITIATION/CONSOMMATION/MODE DE CONSOMMATION

This study used a prospective survey to examine (a) the relationships of early onset and prior consumption of cannabis, cigarette, and alcohol use with later cannabis use initiation, reinitiation, and persistence; and (b) whether the quantity or frequency of alcohol or cigarette use was more predictive of cannabis use initiation, reinitiation, or persistence. This study used data from the National Epidemiologic Survey of Alcohol and Related Conditions, Wave 1 (2001-2002) and Wave 2 (2004-2005), including 27,741 nonusers, 5,623 prior users, and 1,279 current cannabis users at baseline who were at risk of cannabis use initiation, reinitiation, and persistence, respectively, between baseline and follow-up assessments. We employed logistic regression to examine the effects of prior substance use on cannabis use initiation, reinitiation, and persistence, controlling for sociodemographics. Frequency and early-onset status of cigarette use ( $\leq 14$  years) and alcohol use ( $\leq 17$  years) predicted cannabis use initiation and reinitiation but not persistence. While considering the potential effects of early onset and consumption levels of cannabis use, baseline alcohol and cigarette use quantity and frequency did not predict persistent cannabis use. Frequency, compared with quantity, of alcohol and cigarette use was more predictive of cannabis use initiation and reinitiation. Early onset and prior experience with cannabis, cigarettes, and alcohol could have effects on later cannabis use, varying among the three at-risk populations. Different strategies are needed for preventing cannabis use initiation, reinitiation, and persistence, based on targeting early use of alcohol and cigarettes.

Source : P0015,  
33674

Thème : **TABAGISME**

Weinberger A.H., Platt J., Jiang B., Goodwin R.D.

**Cigarette Smoking and Risk of Alcohol Use Relapse Among Adults in Recovery from Alcohol Use Disorders.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1989-1996

Mots-clefs : GUERISON/PROBLEME LIE A L'ALCOOL/TABAGISME/RECHUTE/ADULTE/ETATS-UNIS/EPIDEMIOLOGIE/ETUDE DE COHORTE/STATUT SOCIO-DEMOGRAPHIQUE/PSYCHIATRIE/DEPENDANCE/CONSOMMATION EXCESSIVE

Individuals in recovery from alcohol use disorders (AUDs) frequently continue to smoke cigarettes. The purpose of this study was to examine the relationship between cigarette smoking status and risk of AUD relapse in adults with remitted AUDs among adults in the United States. Data were drawn from Wave 1 (2001 to 2002) and Wave 2 (2004 to 2005) of the National Epidemiologic Survey on Alcohol and Related Conditions. Analyses included the subsample of respondents who completed both waves of data collection reported a history of alcohol abuse and/or dependence prior to Wave 1 ( $N = 9,134$ ). Relationships between Wave 1 cigarette smoking status (nonsmoker, daily cigarette smoker, and nondaily cigarette smoker) and Wave 2 alcohol use, abuse, and dependence were examined using logistic regression analyses. Analyses were adjusted for Wave 1 demographics; mood, anxiety, and substance use disorders; nicotine dependence; and AUD severity. Both daily and nondaily cigarette smoking at Wave 1 were significantly associated with a lower likelihood of alcohol use and a greater likelihood of alcohol abuse and dependence at Wave 2 compared to Wave 1 nonsmoking. These relationships remained significant after adjusting for demographics, psychiatric disorders, substance use disorders, AUD severity, and nicotine dependence. Among adults with remitted AUDs, daily and nondaily use of cigarettes was associated with significantly decreased likelihood of alcohol use and increased likelihood of alcohol abuse and alcohol dependence 3 years later. Concurrent treatment of cigarette smoking when treating AUDs may help improve long-term alcohol outcomes and reduce the negative consequences of both substances.

Source : P0004,  
33612

## ALCOOLÉMIE

Thème : **SECURITE ROUTIERE**

Azofeifa A., Mattson M.E., Lyerla R.

**Driving under the influence of alcohol, marijuana, and alcohol and marijuana combined among persons aged 16-25 years - United States, 2002-2014**

*Morbidity and Mortality Weekly Report - CDC MMWR*, 2015, Vol.64, n°48, 1325-1329

Mots-clefs : ACCIDENT DE LA ROUTE/ETATS-UNIS/MOTIVATION/JEUNE ADULTE/PREVALENCE/MARIJUANA/ETHANOL/POLYCONSOMMATION/ETUDE DE COHORTE/CONDUITE EN ETAT D'INTOXICATION

Motor vehicle accidents are the leading cause of death among youths and young adults aged 16-25 years in the United States (1). The prevalence of drinking and driving among high school students aged 16-19 years has declined by 54%, from 22.3% in 1991 to 10.3% in

2011 (2). However, the prevalence of weekend nighttime driving under the influence of marijuana (based on biochemical assays) among drivers aged  $\geq 16$  years has increased by 48%, from 8.6% in 2007 to 12.6% in 2013-2014 (3). Use of marijuana alone and in combination with alcohol has been shown to impair driving abilities (4-9). This report provides the most recent self-reported national estimates of driving under the influence of alcohol, marijuana, and alcohol and marijuana combined among persons aged 16-25 years, using data from the Substance Abuse and Mental Health Services Administration (SAMHSA) National Survey on Drug Use and Health (NSDUH) from 2002-2014. Prevalence data on driving under the influence of both substances were examined for two age groups (16-20 years and 21-25 years) and by sex and race/ethnicity. During 2002-2014, the prevalence of driving under the influence of alcohol alone significantly declined by 59% among persons aged 16-20 years (from 16.2% in 2002 to 6.6% in 2014;  $p < 0.001$ ) and 38% among persons 21-25 years (from 29.1% in 2002 to 18.1% in 2014;  $p < 0.001$ ). In addition, the prevalence of driving under the influence of alcohol and marijuana combined significantly declined by 39%, from 2.3% in 2002 to 1.4% in 2014 ( $p < 0.001$ ) among persons aged 16-20 years and from 3.1% in 2002 to 1.9% in 2014 ( $p < 0.001$ ) among persons aged 21-25 years. The prevalence of driving under the influence of marijuana alone declined 18%, from 3.8% in 2002 to 3.1% in 2014 ( $p = 0.05$ ) only among persons aged 16-20 years. Effective public safety interventions,\* such as minimum legal drinking age laws, prohibition of driving with any alcohol level  $> 0$  for persons aged  $< 21$  years, targeted mass media campaigns, roadside testing (e.g., sobriety checkpoints), and graduated driver licensing programs (10) have contributed to the decline in driving under the influence of alcohol in this population. These or similar interventions might be useful to prevent driving under the influence of other substances, such as marijuana alone or combined with other substances.

Source : *TAP 007 592*,  
*33660*

## ALCOOLOGIE-ADDICTOLOGIE

Thème : ASSOCIATION D'ANCIENS BUVEURS - GROUPE D'ENTRAIDE

Hiernaux C., Varescon I.

**L'éveil spirituel, un remède à l'alcoolisme ? Population de membres des alcooliques anonymes**

*Alcoologie et Addictologie*, 2015, Vol.37, n°4, 319-326

Mots-clés : ALCOOLIQUE ANONYME/ALCOOLIQUE/GROUPE D'ENTRAIDE/INTERVENTION/ABSTINENCE/EFFICACITE/SPIRITUALITE/QUESTIONNAIRE

Contexte : à travers le monde, de nombreux alcoolo-dépendants se tournent vers les Alcooliques anonymes (AA) pour remédier à leur alcoolisme. Ce groupe d'entraide propose à ses membres de les aider à devenir et rester abstinent grâce à un programme d'éveil spirituel. La recherche nord-américaine a prouvé l'efficacité des AA et l'existence d'un lien négatif entre spiritualité et consommation de substances. A notre connaissance, aucune étude française n'a étudié le lien entre l'adhésion et l'ancienneté aux AA et la croissance spirituelle.

Méthode : des analyses de corrélations ont été entreprises à partir des réponses de 55 alcoolo-dépendants (36 % de femmes) membres des AA et âgés de 28 à 89 ans ( $m = 57,7$ ) à un questionnaire d'informations générales, ainsi qu'à une échelle évaluant l'intensité de leur participation aux AA et à deux échelles estimant leur niveau de spiritualité.

Résultats : nous avons démontré que le niveau de spiritualité était associé significativement, positivement et fortement à l'intensité de la participation aux AA ( $r = 0,62$  ;  $p < 0,05$ ) et modérément à l'ancienneté dans l'association ( $r = + 0,27$  ;  $p < 0,05$ ). Ce faisant, nous avons mis en évidence des corrélations significatives, positives et modérées entre l'intensité de la participation des membres AA à cette association et des composantes de la santé mentale. Discussion : notre étude montre que la participation aux AA, en étant associée à un éveil spirituel, conduirait à un rétablissement des addictions. Elle appelle ainsi à s'interroger sur la notion de rétablissement et les mécanismes d'efficacité de la spiritualité.

Source : P0005,  
33575

Thème : **DEPISTAGE**

McNeely J., Strauss S.M., Rotrosen J., Ramautar A., Gourevitch M.N.

**Validation of an audio computer-assisted self-interview (ACASI) version of the alcohol, smoking and substance involvement screening test (ASSIST) in primary care patients.**

*Addiction*, 2016, Vol.111, n°2, 233-244

Mots-clés : ENTRETIEN/EPIDEMIOLOGIE/DROGUE/NEW YORK/ETATS-UNIS/DEPISTAGE/TEST/EFFICACITE

To address barriers to implementing the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in medical settings, we adapted the traditional interviewer-administered (IA) ASSIST to an audio-guided computer assisted self-interview (ACASI) format. This study sought to validate the ACASI ASSIST by estimating the concordance, correlation and agreement of scores generated using the ACASI versus the reference standard IA ASSIST. Secondary aims were to assess feasibility and compare ASSIST self-report to drug testing results. Participants completed the ACASI and IA ASSIST in a randomly assigned order, followed by drug testing. Urban safety-net primary care clinic in New York City, USA. A total of 393 adult patients. Scores generated by the ACASI and IA ASSIST; drug testing results from saliva and hair samples. Concordance between the ACASI and IA ASSIST in identifying moderate-high-risk use was 92-99% for each substance class. Correlation was excellent for global scores [intraclass correlation (ICC) = 0.937, confidence interval (CI) = 0.924-0.948] and for substance-specific scores for tobacco (ICC = 0.927, CI = 0.912-0.940), alcohol (ICC = 0.912, CI = 0.893-0.927) and illicit drugs (ICC = 0.854, CI = 0.854-0.900) and good for prescription drugs (ICC = 0.676, CI = 0.613-0.729). Ninety-four per cent of differences in global scores fell within anticipated limits of agreement. Among participants with a positive saliva test, 74% self-reported use on the ACASI ASSIST. The ACASI ASSIST required a median time of 3.7 minutes (range 0.7-15.4), and 21 (5.3%) participants requested assistance. The computer self-administered Alcohol, Smoking and Substance Involvement Screening Test appears to be a valid alternative to the interviewer-administered approach for identifying substance use in primary care patients.

Source : P0007,  
33681

Thème : **DIAGNOSTIC**

Noss P.

**Utilisation d'un Fibroscan au cabinet du généraliste**

*Courrier des Addictions*, 2015, Vol.17, n°4, 14-15

Mots-clés : ADDICTION/HEPATITE/MEDECIN  
GENERALISTE/CONSULTATION/ETUDE/FIBROSE/DEPISTAGE/DIAGNOSTI  
C

Dans le cadre d'une évaluation de l'impact hépatique des addictions, un cabinet de médecine générale rurale a proposé à des patients présentant des addictions d'effectuer un examen par Fibroscan® pendant une consultation. Cet appareil a pu être mis à la disposition du cabinet dans le cadre d'une étude menée par le Service expert de la lutte contre les hépatites virales d'Alsace (SELHVA), sous la direction du Pr Michel Doffoel, consultant en hépatologie au pôle hépatodigestif du Nouvel Hôpital Civil de Strasbourg.

Les 56 patients qui ont pu en bénéficier l'ont tous accepté et l'ont même perçu comme une valorisation de leur suivi médical.

Cette étude a été menée en novembre 2014 pendant une durée de 2 semaines.

Source : P0076,  
33657

Thème : **RECHUTE**

Seo S., Mohr J., Beck A., Wüstenberg T., Heinz A., Obermayer K.

**Predicting the future relapse of alcohol-dependent patients from structural and functional brain images.**

*Addiction Biology*, 2015, Vol.20, n°6, 1042-1055

Mots-clés : RISQUE/RECHUTE/FACTEUR  
PREDICTIF/ALCOOLIQUE/CERVEAU/IRM/MODE DE  
CONSOMMATION/SUBSTANCE GRISE

In alcohol dependence, individual prediction of treatment outcome based on neuroimaging endophenotypes can help to tailor individual therapeutic offers to patients depending on their relapse risk. We built a prediction model for prospective relapse of alcohol-dependent patients that combines structural and functional brain images derived from an experiment in which 46 subjects were exposed to alcohol-related cues. The patient group had been subdivided *post hoc* regarding relapse behavior defined as a consumption of more than 60 g alcohol for male or more than 40 g alcohol for female patients on one occasion during the 3-month assessment period (16 abstainers and 30 relapsers). Naïve Bayes, support vector machines and learning vector quantization were used to infer prediction models for relapse based on the mean and maximum values of gray matter volume and brain responses on alcohol-related cues within a priori defined regions of interest. Model performance was estimated by leave-one-out cross-validation. Learning vector quantization yielded the model with the highest balanced accuracy (79.4 percent,  $p < 0.0001$ ; 90 percent sensitivity, 68.8 percent specificity). The most informative individual predictors were functional brain activation features in the right and left ventral tegmental areas and the right ventral striatum, as well as gray matter volume features in left orbitofrontal cortex and right medial prefrontal cortex. In contrast, the best pure clinical model reached only chance-level accuracy (61.3 percent). Our results indicate that an individual prediction of future relapse from imaging measurement outperforms prediction from clinical measurements. The approach may help to target specific interventions at different risk groups.

Source : P0054,  
33632

Thème : **RECHUTE**

Geoffroy H.A.S., Noble F.

**Le BDNF est-il un bon candidat comme biomarqueur de la rechute ?**

*Courrier des Addictions*, 2015, Vol.17, n°4, 9-11

Mots-clefs : BDNF/MARQUEUR BIOLOGIQUE/RECHUTE/ADDICTION

De l'étude de son polymorphisme jusqu'à son taux périphérique, le *Brain-Derived Neurotrophic Factor* (BDNF), une neurotrophine, a été le sujet de très nombreux travaux ces dernières années dans le contexte des maladies psychiatriques. Si, dans le cadre de la dépression, il n'est pas considéré comme un marqueur diagnostique, mais plutôt comme un marqueur de l'amélioration des symptômes dépressifs, dans le cas de certaines addictions, le concept de biomarqueur de la rechute est émergent. Quel bilan peut-on faire sur la mesure du taux de BDNF périphérique dans les addictions ? Est-ce le biomarqueur de la rechute de demain ?

Source : P0076,  
33656

## BIOLOGIE-BIOCHIMIE

Thème : **BIOLOGIE**

Massey V.L., Poole L.G., Siow D.L., Torres E., Warner N.L., Schmidt R.H., Ritzenthaler J.D., Roman J., Arteel G.E.

**Chronic Alcohol Exposure Enhances Lipopolysaccharide-Induced Lung Injury in Mice: Potential Role of Systemic Tumor Necrosis Factor-Alpha.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1978-1988

Mots-clefs : FOIE/POUMON/EFFET DE L'ALCOOL/INGESTION  
CHRONIQUE/MODELE

ANIMAL/SOURIS/MALE/LIPOPOLYSACCHARIDE/TNF-

ALPHA/CYTOKINE/AMINOTRANSFERASE/INFLAMMATION/BIOCHIMIE/BIOLOGIE

It is well known that liver and lung injury can occur simultaneously during severe inflammation (e.g., multiple organ failure). However, whether these are parallel or interdependent (i.e., liver-lung axis) mechanisms is unclear. Previous studies have shown that chronic ethanol (EtOH) consumption greatly increases mortality in the setting of sepsis-induced acute lung injury (ALI). The potential contribution of subclinical liver disease in driving this effect of EtOH on the lung remains unknown. Therefore, the purpose of this study was to characterize the impact of chronic EtOH exposure on concomitant liver and lung injury. Male mice were exposed to EtOH-containing Lieber-DeCarli diet or pair-fed control diet for 6 weeks. Some animals were administered lipopolysaccharide (LPS) 4 or 24 hours prior to sacrifice to mimic sepsis-induced ALI. Some animals received the tumor necrosis factor-alpha (TNF- $\alpha$ )-blocking drug, etanercept, for the duration of alcohol exposure. The expression of cytokine mRNA in lung and liver tissue was determined by quantitative PCR. Cytokine levels in the bronchoalveolar lavage fluid and plasma were determined by Luminex assay. As expected, the combination of EtOH and LPS caused liver injury, as indicated by significantly increased levels of the transaminases alanine aminotransferase/aspartate aminotransferase in the plasma and by changes in liver histology. In the lung, EtOH preexposure enhanced pulmonary inflammation and alveolar hemorrhage

caused by LPS. These changes corresponded with unique alterations in the expression of pro-inflammatory cytokines in the liver (i.e., TNF- $\alpha$ ) and lung (i.e., macrophage inflammatory protein-2 [MIP-2], keratinocyte chemoattractant [KC]). Systemic depletion of TNF- $\alpha$  (etanercept) blunted injury and the increase in MIP-2 and KC caused by the combination of EtOH and LPS in the lung. Chronic EtOH preexposure enhanced both liver and lung injury caused by LPS. Enhanced organ injury corresponded with unique changes in the pro-inflammatory cytokine expression profiles in the liver and the lung.

Source : P0004,  
33611

## BOISSON ALCOOLISÉE

Thème : **BOISSON ALCOOLISÉE**

Stamates A.L., Maloney S.F., Marczynski C.A.

**Effects of artificial sweeteners on breath alcohol concentrations in male and female social drinkers**

*Drug and Alcohol Dependence*, 2015, Vol.157, 197-199

Mots-clefs : BOISSON

ALCOOLISÉE/BOISSON/SUCRE/ALCOOLEMIE/EXPERIENCE

BACKGROUND:

Alcohol is often mixed with various nonalcoholic beverages. While consumption of food with alcohol will decrease peak breath alcohol concentrations (BrAC), recent evidence has suggested that mixing alcohol with diet beverages can result in higher BrAC when compared with mixing the same amount of alcohol with sweetened beverages. The purpose of this study was to examine this phenomenon using two different moderate alcohol doses.

METHODS:

Twenty participants (10 males) attended five sessions where they received 1 of 5 doses (0.91ml/kg vodka+3.64ml/kg of diet soda, 0.91ml/kg vodka+3.64 of regular soda, 1.82ml/kg vodka+7.28ml/kg diet soda, 1.82ml/kg vodka+7.28ml/kg regular soda, and a placebo beverage). BrAC was recorded repeatedly up to 180min after dose administration.

RESULTS:

Participants had significantly higher BrAC when the mixer was diet as compared to regular for both alcohol dose conditions. No gender differences were observed.

CONCLUSIONS:

Mixing alcohol with diet beverages can result in higher BrAC when compared to the same amount of alcohol administered with a similar sweetened beverage. Individuals who consume diet mixers with alcohol may reduce caloric intake but increase the harms associated with higher BrACs.

Source : P0010,  
33577

## CERVEAU

Thème : **CERVEAU**

Kamarajan C., Pandey A.K., Chorlian D.B., Manz N., Stimus A.T., Anokhin A.P., Bauer L.O., Kuperman S., Kramer J., Buchholz K.K., Schuckit M.A., Hesselbrock V.M., Porjesz B.

**Deficient Event-Related Theta Oscillations in Individuals at Risk for Alcoholism: A Study of Reward Processing and Impulsivity Features.**

*PLoS One*, 2015, Vol.10, n°11, e0142659

Mots-clefs :

CERVEAU/COGNITION/DYSFONCTIONNEMENT/IMPULSIVITE/RISQUE/ALCOOLISME/ADOLESCENT/JEUNE/ETUDE COGA/HISTOIRE FAMILIALE/DIFFERENCE SEXUELLE/PREVALENCE/PREDISPOSITION BACKGROUND:

Individuals at high risk to develop alcoholism often manifest neurocognitive deficits as well as increased impulsivity. Event-related oscillations (EROs) have been used to effectively measure brain (dys)function during cognitive tasks in individuals with alcoholism and related disorders and in those at risk to develop these disorders. The current study examines ERO theta power during reward processing as well as impulsivity in adolescent and young adult subjects at high risk for alcoholism.

METHODS:

EROs were recorded during a monetary gambling task (MGT) in 12-25 years old participants ( $N = 1821$ ; males = 48%) from high risk alcoholic families (HR,  $N = 1534$ ) and comparison low risk community families (LR,  $N = 287$ ) from the Collaborative Study on the Genetics of Alcoholism (COGA). Impulsivity scores and prevalence of externalizing diagnoses were also compared between LR and HR groups.

RESULTS:

HR offspring showed lower theta power and decreased current source density (CSD) activity than LR offspring during loss and gain conditions. Younger males had higher theta power than younger females in both groups, while the older HR females showed more theta power than older HR males. Younger subjects showed higher theta power than older subjects in each comparison. Differences in topography (i.e., frontalization) between groups were also observed. Further, HR subjects across gender had higher impulsivity scores and increased prevalence of externalizing disorders compared to LR subjects.

CONCLUSIONS:

As theta power during reward processing is found to be lower not only in alcoholics, but also in HR subjects, it is proposed that reduced reward-related theta power, in addition to impulsivity and externalizing features, may be related in a predisposition to develop alcoholism and related disorders.

Source : *TAP 007 583*,  
**33623**

Thème : **CERVEAU**

Durazzo T.C., Mon A., Gazdzinski S., Yeh P.H., Meyerhoff D.J.

**Serial longitudinal magnetic resonance imaging data indicate non-linear regional gray matter volume recovery in abstinent alcohol-dependent individuals.**

*Addiction Biology*, 2015, Vol.20, n°5, 956-967

Mots-clefs : CERVEAU/VOLUME/ABSTINENCE/SUBSTANCE

GRISE/SUBSTANCE BLANCHE/CERVELET/THALAMUS/GUERISON/IRM

The trajectory of regional volume changes during the first year of sustained abstinence in those recovering from an alcohol use disorder is unclear because previous research typically employed only two assessment points. To better understand the trajectory of regional brain volume recovery in treatment-seeking alcohol-dependent individuals (ALC), regional brain

volumes were measured after 1 week, 1 month and 7.5 months of sustained abstinence via magnetic resonance imaging at 1.5 T. ALC showed significant volume increases in frontal, parietal and occipital gray matter (GM) and white matter (WM), total cortical GM and total lobar WM, thalamus and cerebellum, and decreased ventricular volume over 7.5 months of abstinence. Volume increases in regional GM were significantly greater over 1 week to 1 month than from 1 month to 7.5 months of abstinence, indicating a non-linear rate of change in regional GM over 7.5 months. Overall, regional lobar WM showed linear volume increases over 7.5 months. With increasing age, smoking ALC showed lower frontal and total cortical GM volume recovery than non-smoking ALC. Despite significant volume increases, ALC showed smaller GM volumes in all regions, except the frontal cortex, than controls after 7.5 months of abstinence. ALC and controls showed no regional WM volume differences at any assessment point. In non-smoking ALC only, increasing regional GM and WM volumes were related to improving processing speed. Findings may indicate a differential rate of recovery of cell types/cellular components contributing to GM and WM volume during early abstinence, and that GM volume deficits persist after 7.5 months of sustained sobriety in this ALC cohort.

Source : P0054,  
33626

Thème : [CERVEAU](#)

Jansen J.M., van Holst R.J., Van den Brink W., Veltman D.J., Caan M.W., Goudriaan A.E.  
**Brain function during cognitive flexibility and white matter integrity in alcohol-dependent patients, problematic drinkers and healthy controls.**  
*Addiction Biology*, 2015, Vol.20, n°5, 979-989

Mots-clefs : SUBSTANCE

BLANCHE/COGNITION/ALCOOLISME/IRM/CERVEAU/PERFORMANCE

Cognitive flexibility has been associated with prefrontal white matter (WM) integrity in healthy controls (HCs), showing that lower WM integrity is associated with worse performance. Although both cognitive flexibility and WM integrity have been found to be aberrant in alcohol-dependent (AD) patients, the relationship between the two has never been tested. In this study, we investigated the association between WM tract density and cognitive flexibility in patients with AD ( $n = 26$ ) and HCs ( $n = 22$ ). In order to assess the influence of AD severity, we also included a group of problematic drinkers (PrDs;  $n = 23$ ) who did not meet the AD criteria. Behavioral responses and brain activity during a cognitive flexibility task were measured during functional magnetic resonance imaging. Probabilistic fiber tracking was performed between the dorsolateral prefrontal cortex and the basal ganglia; two crucial regions for task switching. Finally, the task-related functional connectivity between these areas was assessed. There were no significant group differences in the task performance. However, compared with HCs, AD patients and PrDs showed decreased WM integrity and increased prefrontal brain activation during task switching. Evidence is presented for a compensatory mechanism, involving recruitment of additional prefrontal resources in order to compensate for WM and neural function impairments in AD patients and PrDs. Although present in both alcohol groups, the PrDs were more successful in invoking this compensatory mechanism when compared to the AD patients. We propose that this may therefore serve as a protective factor, precluding transition from problematic drinking into alcohol dependence.

Source : P0054,

33627

Thème : **CERVEAU**

Edwards S., Little H.J., Richardson H.N., Vendruscolo L.F.

**Divergent regulation of distinct glucocorticoid systems in alcohol dependence.***Alcohol*, 2015, Vol.49, n°8, 811-816

Mots-clefs : INGESTION CHRONIQUE/GLUCOCORTICOIDE/CONSOMMATION EXCESSIVE/ETHANOL/NEUROLOGIE/AMYGDALÉ/CORTEX/COMORBIDITÉ/DEPENDANCE

Chronic alcohol consumption disrupts glucocorticoid signaling at multiple physiological levels to interact with several disease-related processes associated with neuroendocrine and psychiatric disorders. Excessive alcohol use produces stress-related neuroadaptations at the level of the hypothalamic-pituitary-adrenal (HPA) axis as well as within central (extra-hypothalamic) neural circuitry, including the central amygdala (CeA) and prefrontal cortex (PFC). Altered glucocorticoid receptor (GR) signaling in these areas following excessive alcohol exposure is postulated to mediate the transition from recreational drinking to dependence, as well as the manifestation of a host of cognitive and neurological deficits. Specifically, a bidirectional regulation of stress systems by glucocorticoids leads to the development of an HPA axis tolerance and a concomitant sensitization of cortical and subcortical circuitries. A greater understanding of how hypothalamic and extra-hypothalamic glucocorticoid systems interact to mediate excessive drinking and related pathologies will lead to more effective therapeutic strategies for alcohol use disorder (AUD) and closely related comorbidities.

Source : P0002,  
33651Thème : **CERVEAU**

Barker J.M., Corbit L.H., Robinson D.L., Gremel C.M., Gonzales R.A., Chandler L.J.

**Corticostriatal circuitry and habitual ethanol seeking.***Alcohol*, 2015, Vol.49, n°8, 817-824

Mots-clefs :

COMPORTEMENT/ADDICTION/CORTEX/CERVEAU/STRIATUM/NEUROBIOLOGIE

The development of alcohol-use disorders is thought to involve a transition from casual alcohol use to uncontrolled alcohol-seeking behavior. This review will highlight evidence suggesting that the shift toward inflexible alcohol seeking that occurs across the development of addiction consists, in part, of a progression from goal-directed to habitual behaviors. This shift in "response strategy" is thought to be largely regulated by corticostriatal network activity. Indeed, specific neuroanatomical substrates within the prefrontal cortex and the striatum have been identified as playing opposing roles in the expression of actions and habits. A majority of the research on the neurobiology of habitual behavior has focused on non-drug reward seeking. Here, we will highlight recent research identifying corticostriatal structures that regulate the expression of habitual alcohol seeking and a comparison will be made when possible to findings for non-drug rewards.

Source : P0002,

33652

Thème : **ENDOCRINOLOGIE - NEUROENDOCRINOLOGIE**

Rao M., Zuo L.D., Fang F., Martin K., Zheng Y., Zhang H.P., Li H.G., Zhu C.H., Xiong C.L., Guan H.T.

**Association of Alcohol Consumption with Markers of Prostate Health and Reproductive Hormone Profiles: A Multi-Center Study of 4535 Men in China.**

*PLoS One*, 2015, Vol.10, n°11, e0142780

Mots-clés : CONSOMMATION/ETHANOL/EFFET DE L'ALCOOL/PROSTATE/HORMONE/CHINE/ETUDE TRANSVERSALE/HOMME/HORMONE SEXUELLE/LH/OESTRADIOL/TESTOSTERONE/ENDOCRINOLOGIE

## BACKGROUND:

The effect of alcohol consumption on prostate health and reproductive hormone profiles has long been investigated and currently, no consensus has been reached. Additionally, large studies focusing on this topic are relatively rare in China.

## PURPOSE:

To investigate the association of alcohol consumption with prostate measurements and reproductive hormone profiles in Chinese population; and to examine the relationship between hormone levels and prostate measurements.

## METHODS:

This cross-sectional study included 4535 men from four representative provinces of China. Demographic details, family history of prostate disease, tobacco and alcohol consumption, as well as International Prostate Symptom Score (I-PSS) were collected through a questionnaire. Total prostate specific antigen (total PSA), free PSA, free PSA/total PSA ratio (f/tPSA), and reproductive hormones were measured in serum. Multi-variable regression models were used to test for association of alcohol consumption with markers of prostate health, used to test for association of alcohol consumption with reproductive hormones, and reproductive hormones with markers of prostate health.

## RESULTS:

Alcohol consumption had no obvious impact on total PSA concentration and I-PSS.

Current drinkers had lower level of free PSA ( $\beta = -0.11$ ,  $p = 0.02$ ) and f/tPSA ( $\beta = -0.03$ ,  $p = 0.005$ ), former drinkers also had lower level of free PSA ( $\beta = -0.19$ ,  $p = 0.02$ ) when compared with never drinkers. Lower Luteinizing hormone (LH) ( $\beta = -1.05$ ,  $p = 0.01$ ), sex hormone-binding globulin (SHBG) ( $\beta = -4.71$ ,  $p = 0.01$ ) and higher estradiol ( $\beta = 7.81$ ,  $p = 0.01$ ) was found in current drinkers than never drinkers, whereas higher LH ( $\beta = 1.04$ ,  $p = 0.04$ ) and free testosterone (FT) ( $\beta = 0.03$ ,  $p = 0.02$ ) was detected in former drinkers than never drinkers. Furthermore, LH was positively associated with f/tPSA ( $\beta = 0.002$ ,  $p = 0.006$ ), SHBG was also positively related with free PSA ( $\beta = 0.003$ ,  $p = 0.003$ ) and f/tPSA ( $\beta = 0.0004$ ,  $p = 0.01$ ). Both total testosterone (TT) and FT were inversely related with I-PSS (OR = 0.97, 95% CI, 0.95-0.98; OR = 0.23, 95% CI, 0.11-0.45, respectively).

## CONCLUSIONS:

Alcohol consumption could affect serum free PSA concentration and also f/tPSA ratio, and also acts as an endocrine disruptor on the male reproductive hormone profiles. LH and SHBG were positively related with fPSA and f/tPSA, and higher level of TT and FT may be helpful for improving participants' subjective symptoms.

Source : *TAP 007 578*,

33597

Thème : **NEUROBIOLOGIE**

Shepherd G.M.

**Neuroenology: how the brain creates the taste of wine***Flavour*, 2015, Vol.4, n°19, 5 p.

Mots-clefs : CERVEAU/GOUT/VIN/OPINION SUR L'ALCOOL

Flavour science is concerned with the sensory appreciation of food. However, flavor is not in the food; it is created by the brain, through multiple sensory, motor, and central behavioral systems. We call this new multidisciplinary field “neurogastronomy.” It is proving useful in integrating research findings in the brain with the biomechanics of generating food volatiles and their transport through retronasal smell. Recent findings in laboratory animals and in humans give new insights into the adaptations that have occurred during evolution that give humans an enhanced flavor perception. This process will be illustrated by an analysis of how the brain creates the taste of wine. The successive stages of the biomechanics of movement of the ingested wine and transport of the released volatiles will be correlated with activation of the multiple brain mechanisms, apparently engaging more of the brain than any other human behavior. These stages include the initial cephalic phase, visual analysis, ingestion, formation of the wine perceptual image, formation of the wine perceptual object, swallowing, and post-ingestive effects. This combined biomechanic and brain mechanism approach suggests a new discipline of “neuroenology (neuro-oenology),” adding to the contributions that science can make to the enhanced quality and appreciation of wine.

Source : *TAP 007 574*,  
33578

Thème : **NEUROBIOLOGIE**

Crews F.T., Sarkar D.K., Phil D., Qin L., Zou J., Boyadjieva N., Sci D., Vetreno R.P.

**Neuroimmune function and the consequences of alcohol exposure***Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 331-351

Mots-clefs : GENE/CONSOMMATION EXCESSIVE PONCTUELLE/STRESS  
OXYDATIF/NEUROBIOLOGIE/CYTOKINE/IMMUNOLOGIE/CONSOMMATIO  
N EXCESSIVE/CERVEAU/HIPPOCAMPE/DEGENERESCENCE

Induction of neuroimmune genes by binge drinking increases neuronal excitability and oxidative stress, contributing to the neurobiology of alcohol dependence and causing neurodegeneration. Ethanol exposure activates signaling pathways featuring highmobility group box 1 and Toll-like receptor 4 (TLR4), resulting in induction of the transcription factor nuclear factor kappa-light-chain-enhancer of activated B cells, which regulates expression of several cytokine genes involved in innate immunity, and its target genes. This leads to persistent neuroimmune responses to ethanol that stimulate TLRs and/or certain glutamate receptors (i.e., N-methyl-d-aspartate receptors). Alcohol also alters stress responses, causing elevation of peripheral cytokines, which further sensitize neuroimmune responses to ethanol. Neuroimmune signaling and glutamate excitotoxicity are linked to alcoholic neurodegeneration. Models of alcohol abuse have identified significant frontal cortical degeneration and loss of hippocampal neurogenesis, consistent with neuroimmune activation pathology contributing to these alcohol-induced, long-lasting changes in the brain. These alcohol-induced long-lasting increases in brain neuroimmune-gene expression also

may contribute to the neurobiology of alcohol use disorder.

Source : *P0006*,  
**33593**

Thème : **NEUROBIOLOGIE**

Zheng L., Wu X., Dong X., Ding X., Song C.

**Effects of Chronic Alcohol Exposure on the Modulation of Ischemia-Induced Glutamate Release via Cannabinoid Receptors in the Dorsal Hippocampus.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1908-1916

Mots-clefs : INGESTION

CHRONIQUE/ETHANOL/GLUTAMATE/ATTAQUE/CERVEAU/ISCHEMIE/RECEPTEUR CANNABINOIDE/MODELE

ANIMAL/RAT/SEVRAGE/HIPPOCAMPE/NEUROBIOLOGIE

Chronic alcohol consumption is a critical contributing factor to ischemic stroke, as it enhances ischemia-induced glutamate release, leading to more severe excitotoxicity and brain damage. But the neural mechanisms underlying this phenomenon are poorly understood. We evaluated the effects of chronic alcohol exposure on the modulation of ischemia-induced glutamate release via CB1 and CB2 cannabinoid receptors during middle cerebral artery occlusion, using in vivo microdialysis coupled with high-performance liquid chromatography, in alcohol-naïve rats or rats after 1 or 30 days of withdrawal from chronic ethanol intake (6% v/v for 14 days). Intra-dorsal hippocampus (DH) infusions of ACEA or JWH133, selective CB1 or CB2 receptor agonists, respectively, decreased glutamate release in the DH in alcohol-naïve rats in a dose-dependent manner. Such an effect was reversed by co-infusions of SR141716A or AM630, selective CB1 or CB2 receptor antagonists, respectively. After 30 days, but not 1 day of withdrawal, ischemia induced an enhancement in glutamate release in the DH, as compared with non-alcohol-treated control group. Intra-DH infusions of JWH133, but not ACEA, inhibited ischemia-induced glutamate release in the DH after 30 days of withdrawal. Finally, 1 day of withdrawal did not alter the protein level of CB1 or CB2 receptors in the DH, as compared to non-alcohol-treated control rats. Whereas 30 days of withdrawal robustly decreased the protein level of CB1 receptors, but failed to alter the protein level of CB2 receptors, in the DH, as compared to non-alcohol-treated control rats. Together, these findings suggest that loss of expression/function of CB1 receptors, but not CB2 receptors in the DH, is correlated with the enhancement of ischemia-induced glutamate release after prolonged alcohol withdrawal.

Source : *P0004*,  
**33604**

Thème : **NEUROBIOLOGIE**

Kreusch F., Goffaux V., Siep N., Houben K., Quertemont E., Wiers R.W.

**Brain Activation Associated with Automatic Processing of Alcohol-Related Cues in Young Heavy Drinkers and Its Modulation by Alcohol Administration.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1957-1966

Mots-clefs : IRM/CERVEAU/NEUROLOGIE/CONSOMMATION

EXCESSIVE/ETHANOL/HOMME/PLACEBO/EXPERIENCE/NEUROBIOLOGIE/CONCENTRATION

While the automatic processing of alcohol-related cues by alcohol abusers is well established in experimental psychopathology approaches, the cerebral regions involved in this phenomenon and the influence of alcohol intake on this process remain unknown. The aim of this functional magnetic resonance imaging (fMRI) study was to investigate the neural mechanisms underlying the processing of task-irrelevant alcohol-related stimuli in young heavy drinkers and their modulation by alcohol administration. Twelve heavy drinking male participants were scanned on 2 separate days; once after a low dose of alcohol intake (0.4 g/kg), and once after a placebo intake, in balanced order. Images of alcoholic drinks, soft drinks, or neutral objects were shown while participants' neural activity was recorded through fMRI. Moreover, participants' attentional focus was manipulated using a task which required them to process the central images of interest (focus alcohol condition) or a center unattended task (focus not on alcohol condition). Results indicated that an explicit judgment on beverage-related cues increased activation in the prefrontal area compared with the judgment of neutral objects. By comparison with that of task-irrelevant neutral cues, the processing of task-irrelevant alcohol-related cues increased the activation in a large network of cerebral areas including visual and temporal regions, the bilateral anterior cingulate cortex, the posterior cingulate cortex, and the putamen. Moreover, in the condition with focus not on alcohol, the ventral tegmental area (VTA) was particularly activated by the presentation of (task-irrelevant) alcohol-related cues compared to task-irrelevant soft-drink-related cues. The VTA was especially involved in the automatic processing of alcohol-related cues in young heavy drinkers. Low dose of alcohol did not modulate the neural substrates involved in the processing of salient alcohol-related cues.

Source : *P0004*,  
*33609*

Thème : **NEUROBIOLOGIE**

LeBlanc D.M., McGinn M.A., Itoga C.A., Edwards S.

**The affective dimension of pain as a risk factor for drug and alcohol addiction.**

*Alcohol*, **2015**, Vol.49, n°8, 803-809

Mots-clefs : ADDICTION/CERVEAU/AMYGDALÉ/CORTEX/NOYAU  
ACCUMBENS/DOULEUR/AFFECT/RECHUTE/NEUROCHIMIE/CORTICOTROP  
IN-RELEASING FACTOR/NEUROBIOLOGIE

Addiction, or substance use disorder (SUD), is a devastating psychiatric disease composed of multiple elemental features. As a biobehavioral disorder, escalation of drug and/or alcohol intake is both a cause and consequence of molecular neuroadaptations in central brain reinforcement circuitry. Multiple mesolimbic areas mediate a host of negative affective and motivational symptoms that appear to be central to the addiction process. Brain stress- and reinforcement-related regions such as the central amygdala (CeA), prefrontal cortex (PFC), and nucleus accumbens (NAc) also serve as central processors of ascending nociceptive input. We hypothesize that a sensitization of brain mechanisms underlying the processing of persistent and maladaptive pain contributes to a composite negative affective state to drive the enduring, relapsing nature of addiction, particularly in the case of alcohol and opioid use disorder. At the neurochemical level, pain activates central stress-related neuropeptide signaling, including the dynorphin and corticotropin-releasing factor (CRF) systems, and by this process may facilitate negative affect and escalated drug and alcohol use over time. Importantly, the widespread prevalence of unresolved pain and associated affective dysregulation in clinical populations highlights the need for more effective analgesic medications with reduced potential for tolerance and dependence. The burgeoning epidemic

of prescription opioid abuse also demands a closer investigation into the neurobiological mechanisms of how pain treatment could potentially represent a significant risk factor for addiction in vulnerable populations. Finally, the continuing convergence of sensory and affective neuroscience fields is expected to generate insight into the critical balance between pain relief and addiction liability, as well as provide more effective therapeutic strategies for chronic pain and addiction.

Source : P0002,  
33650

Thème : **NEUROLOGIE**

Chen H., He D., Lasek A.W.

**Repeated Binge Drinking Increases Perineuronal Nets in the Insular Cortex.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1930-1938

Mots-clefs : MODELE ANIMAL/SOURIS/CORTEX/CONSOMMATION  
EXCESSIVE PONCTUELLE/ADULTE/NUIT/CERVEAU/NEUROLOGIE

Alcohol exposure leads to changes in the extracellular matrix (ECM) in the brain, which profoundly impacts neuronal plasticity. Perineuronal nets (PNs) are specialized ECM structures that enclose subpopulations of neurons in the cortex. Adolescent exposure to alcohol induces long-lasting increases in the expression of PN components in the cortex in adult mice. However, it has not been determined whether binge alcohol exposure in young adults alters PNs. Here, we examined PNs and their core components in the insula and primary motor cortex after repeated binge-like ethanol (EtOH) consumption in adult mice. The 4-day drinking in the dark (DID) procedure was performed in mice for 1 or 6 weeks to model binge alcohol consumption. The impact of EtOH drinking on PNs was examined by fluorescent staining of brain sections using a marker for PNs, *Wisteria floribunda* agglutinin (WFA). In another set of experiments, cortex was dissected and Western blots and real-time quantitative polymerase chain reaction were performed to evaluate the expression of the PN proteins aggrecan, brevican, and phosphacan. Binge-like EtOH drinking for 6 weeks caused a significant increase in PNs in the insula, as measured by WFA binding. Aggrecan, brevican, and phosphacan protein expression, and aggrecan mRNA expression, were also elevated in the insula after 6 weeks of EtOH drinking. In contrast, expression of PN components did not change after 1 week of DID. The increase in PNs appears to be specific to the insula, because alterations were not observed in the primary motor cortex. Our results provide the first evidence that insular PNs increase after long-term binge drinking. The insula mediates compulsive alcohol use. As PNs influence neuronal firing and plasticity, increased PNs in the insula after multiple binge cycles may contribute to restricted neuronal plasticity and lead to the development of compulsive alcohol use.

Source : P0004,  
33606

Thème : **NEUROLOGIE**

Golub H.M., Zhou Q.G., Zucker H., McMullen M.R., Kokiko-Cochran O.N., Ro E.J., Nagy L.E., Suh H.

**Chronic Alcohol Exposure is Associated with Decreased Neurogenesis, Aberrant Integration of Newborn Neurons, and Cognitive Dysfunction in Female Mice.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1967-1977

Mots-clefs : PROBLEME LIE A  
L'ALCOOL/CERVEAU/HIPPOCAMPE/CERVEAU/INGESTION  
CHRONIQUE/NEUROLOGIE/NOUVEAU-NE/CARENCE/MODELE  
ANIMAL/SOURIS/SYNAPSE/COGNITION

Neurological deficits of alcohol use disorder (AUD) have been attributed to dysfunctions of specific brain structures. Studies of alcoholic patients and chronic alcohol exposure animal models consistently identify reduced hippocampal mass and cognitive dysfunctions as a key alcohol-induced brain adaptation. However, the precise substrate of chronic alcohol exposure that leads to structural and functional impairments of the hippocampus is largely unknown. Using a calorie-matched alcohol feeding method, we tested whether chronic alcohol exposure targets neural stem cells and neurogenesis in the adult hippocampus. The effect of alcohol on proliferation of neural stem cells as well as cell fate determination and survival of newborn cells was evaluated via bromodeoxyuridine pulse and chase methods. A retrovirus-mediated single-cell labeling method was used to determine the effect of alcohol on the morphological development and circuitry incorporation of individual hippocampal newborn neurons. Finally, novel object recognition (NOR) and Y-maze tests were performed to examine whether disrupted neurogenesis is associated with hippocampus-dependent functional deficits in alcohol-fed mice. Chronic alcohol exposure reduced proliferation of neural stem cells and survival rate of newborn neurons; however, the fate determination of newborn cells remained unaltered. Moreover, the dendritic spine density of newborn neurons significantly decreased in alcohol-fed mice. Impaired spine formation indicates that alcohol interfered the synaptic connectivity of newborn neurons with excitatory neurons originating from various areas of the brain. In the NOR test, alcohol-fed mice displayed deficits in the ability to discriminate the novel object. Our study revealed that chronic alcohol exposure disrupted multiple steps of neurogenesis, including the production and development of newborn neurons. In addition, chronic alcohol exposure altered connectivity of newborn neurons with other input neurons. Decreased neurogenesis and aberrant integration of newborn neurons into hippocampal networks are closely associated with deficits in hippocampus-dependent cognitive functions of alcohol-fed mice.

Source : *P0004*,  
**33610**

Thème : **NEUROLOGIE**

Wiers C.E., Ludwig V.U., Gladwin T.E., Park S.Q., Heinz A., Wiers R.W., Rinck M., Lindenmeyer J., Walter H., Bermpohl F.

**Effects of cognitive bias modification training on neural signatures of alcohol approach tendencies in male alcohol-dependent patients.**

*Addiction Biology*, **2015**, Vol.20, n°5, 990-999

Mots-clefs :  
CERVEAU/COGNITION/BIAIS/PLACEBO/IRM/NEUROLOGIE/CORTEX/HOMME/PATIENT/ALCOOLIQUE

Alcohol-dependent patients have been shown to faster approach than avoid alcohol stimuli on the Approach Avoidance Task (AAT). This so-called alcohol approach bias has been associated with increased brain activation in the medial prefrontal cortex and nucleus accumbens. Cognitive bias modification (CBM) has been used to retrain the approach bias with the clinically relevant effect of decreasing relapse rates one year later. The effects of CBM on neural signatures of approach/avoidance tendencies remain hitherto unknown. In a

double-blind placebo-controlled design, 26 alcohol-dependent in-patients were assigned to a CBM or a placebo training group. Both groups performed the AAT for three weeks: in CBM training, patients pushed away 90 percent of alcohol cues; this rate was 50 percent in placebo training. Before and after training, patients performed the AAT offline, and in a 3 T magnetic resonance imaging scanner. The relevant neuroimaging contrast for the alcohol approach bias was the difference between approaching versus avoiding alcohol cues relative to soft drink cues: [(alcohol pull > alcohol push) > (soft drink pull > soft drink push)]. Before training, both groups showed significant alcohol approach bias-related activation in the medial prefrontal cortex. After training, patients in the CBM group showed stronger reductions in medial prefrontal cortex activation compared with the placebo group. Moreover, these reductions correlated with reductions in approach bias scores in the CBM group only. This suggests that CBM affects neural mechanisms involved in the automatic alcohol approach bias, which may be important for the clinical effectiveness of CBM.

Source : P0054,  
33628

Thème : **NEUROLOGIE**

Dudek M., Abo-Ramadan U., Hermann D., Brown M., Canals S., Sommer W.H., Hyytiä P.  
**Brain activation induced by voluntary alcohol and saccharin drinking in rats assessed with manganese-enhanced magnetic resonance imaging.**  
*Addiction Biology*, 2015, Vol.20, n°6, 1012-1021

Mots-clefs : NEUROLOGIE/CERVEAU/PREFERENCE POUR  
L'ALCOOL/CONSOMMATION/ETHANOL/MODELE  
ANIMAL/RAT/IRM/SACCHARINE/SYSTEME DE  
RECOMPENSE/RECHUTE/DOPAMINE

The neuroanatomical and neurochemical basis of alcohol reward has been studied extensively, but global alterations of neural activity in reward circuits during chronic alcohol use remain poorly described. Here, we measured brain activity changes produced by long-term voluntary alcohol drinking in the alcohol-preferring AA (Alko alcohol) rats using manganese-enhanced magnetic resonance imaging (MEMRI). MEMRI is based on the ability of paramagnetic manganese ions to accumulate in excitable neurons and thereby enhance the T1-weighted signal in activated brain areas. Following 6 weeks of voluntary alcohol drinking, AA rats were allowed to drink alcohol for an additional week, during which they were administered manganese chloride (MnCl<sub>2</sub>) with subcutaneous osmotic minipumps before MEMRI. A second group with an identical alcohol drinking history received MnCl<sub>2</sub> during the abstinence week following alcohol drinking. For comparing alcohol with a natural reinforcer, MEMRI was also performed in saccharin-drinking rats. A water-drinking group receiving MnCl<sub>2</sub> served as a control. We found that alcohol drinking increased brain activity extensively in cortical and subcortical areas, including the mesocorticolimbic and nigrostriatal dopamine pathways and their afferents. Remarkably similar activation maps were seen after saccharin ingestion. Particularly in the prelimbic cortex, ventral hippocampus and subthalamic nucleus, activation persisted into early abstinence. These data show that voluntary alcohol recruits an extensive network that includes the ascending dopamine systems and their afferent connections, and that this network is largely shared with saccharin reward. The regions displaying persistent alterations after alcohol drinking could participate in brain networks underlying alcohol seeking and relapse.

Source : P0054,

33630

Thème : **NEUROLOGIE**

Talani G., Lovinger D.M.

**Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons.***Alcohol*, 2015, Vol.49, n°8, 781-794

Mots-clefs : AMYGDALA/SYNAPSE/GABA/NEUROLOGIE/CERVEAU/MODELE ANIMAL/RAT/RECEPTEUR CANNABINOIDE

The basolateral amygdala (BLA) plays crucial roles in stimulus value coding, as well as drug and alcohol dependence. Ethanol alters synaptic transmission in the BLA, while endocannabinoids (eCBs) produce presynaptic depression at BLA synapses. Recent studies suggest interactions between ethanol and eCBs that have important consequences for alcohol drinking behavior. To determine how ethanol and eCBs interact in the BLA, we examined the physiology and pharmacology of GABAergic synapses onto BLA pyramidal neurons in neurons from young rats. Application of ethanol at concentrations relevant to intoxication increased, in both young and adult animals, the frequency of spontaneous and miniature GABAergic inhibitory postsynaptic currents, indicating a presynaptic site of ethanol action. Ethanol did not potentiate sIPSCs during inhibition of adenylyl cyclase while still exerting its effect during inhibition of protein kinase A. Activation of type 1 cannabinoid receptors (CB1) in the BLA inhibited GABAergic transmission via an apparent presynaptic mechanism, and prevented ethanol potentiation. Surprisingly, ethanol potentiation was also prevented by CB1 antagonists/inverse agonists. Brief depolarization of BLA pyramidal neurons suppressed GABAergic transmission (depolarization-induced suppression of inhibition [DSI]), an effect previously shown to be mediated by postsynaptic eCB release and presynaptic CB1 activation. A CB1-mediated suppression of GABAergic transmission was also produced by combined afferent stimulation at 0.1 Hz (LFS), and postsynaptic loading with the eCB arachidonoyl ethanolamide (AEA). Both DSI and LFS-induced synaptic depression were prevented by ethanol. Our findings indicate antagonistic interactions between ethanol and eCB/CB1 modulation at GABAergic BLA synapses that may contribute to eCB roles in ethanol seeking and drinking.

Source : P0002,  
33648Thème : **NEUROPSYCHOLOGIE**

Quaglino V., De Wever E., Maurage P.

**Relations Between Cognitive Abilities, Drinking Characteristics, and Emotional Recognition in Alcohol Dependence: A Preliminary Exploration.***Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 2032-2038

Mots-clefs :

DEPENDANCE/EMOTION/COGNITION/PERFORMANCE/VISAGE/NEUROPSYCHOLOGIE

Alcohol dependence is characterized by wide-ranging cognitive impairments, but also by emotional facial expressions (EFEs) recognition deficits. Although they play a crucial role both in the development and in the maintenance of the disease, cognitive and emotional disorders have up to now been mostly explored separately. As a result, not much is known

regarding their interactions. This study thus aims at exploring the relations between cognition and emotion in alcohol dependence, and more specifically between cognitive performance, drinking characteristics, and EFE recognition. About 26 recently detoxified alcohol-dependent individuals and 26 matched controls were tested for cognitive abilities (by means of a standardized neuropsychological battery) and for EFE recognition. Alcohol-dependent individuals simultaneously presented altered performances for executive abilities and EFE recognition (particularly for disgust recognition). Moreover, a regression analysis showed that EFE performance was centrally related to episodic memory and cognitive flexibility. These results clarify the relations between EFE recognition, cognitive abilities, and drinking characteristics in alcohol dependence and clearly suggest that cognitive factors should be taken into account in future studies exploring emotional processes in alcohol dependence. Specific cognitive programs should be developed to rehabilitate cognitive and emotional abilities simultaneously.

Source : P0004,  
33617

Thème : **NEUROPSYCHOLOGIE**

Trantham-Davidson H., Chandler L.J.

**Alcohol-induced alterations in dopamine modulation of prefrontal activity.**

*Alcohol*, 2015, Vol.49, n°8, 773-779

Mots-clefs :

COGNITION/CARENCE/PERFORMANCE/RECHUTE/DOPAMINE/RECEPTEUR DOPAMINERGIQUE/CERVEAU/CORTEX/EFFET DE L'ALCOOL

Long-term alcohol use leads to persistent cognitive deficits that may be associated with maladaptive changes in the neurocircuitry that mediates executive functions. Impairments caused by these changes can persist well into abstinence and have a negative impact on quality of life and job performance, and can increase the probability of relapse. Many of the changes that affect cognitive function appear to involve dysregulation of the mesocortical dopamine system. This includes changes in dopamine release and alterations in dopamine receptor expression and function in the medial prefrontal cortex (PFC). This review summarizes the cellular effects of acute and chronic ethanol exposure on dopamine release and dopamine receptor function in the PFC with the goal of providing greater understanding of the effects of alcohol-use disorders on the dopamine system and how this relates to deficits in the executive function of the PFC.

Source : P0002,  
33647

Thème : **NEUROPSYCHOLOGIE**

Weafer J., Gallo D.A., De Wit H.

**Acute Effects of Alcohol on Encoding and Consolidation of Memory for Emotional Stimuli.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 86-94

Mots-clefs :

MEMOIRE/EMOTION/STIMULUS/ALCOOLISATION/PLACEBO/EXPERIENCE/NEUROPHYSIOLOGIE

Acute doses of alcohol impair memory when administered before encoding of emotionally neutral stimuli but enhance memory when administered immediately after encoding, potentially by affecting memory consolidation. Here, we examined whether alcohol produces similar biphasic effects on memory for positive or negative emotional stimuli. The current study examined memory for emotional stimuli after alcohol (0.8 g/kg) was administered either before stimulus viewing (encoding group;  $n = 20$ ) or immediately following stimulus viewing (consolidation group;  $n = 20$ ). A third group received placebo both before and after stimulus viewing (control group;  $n = 19$ ). Participants viewed the stimuli on one day, and their retrieval was assessed exactly 48 hours later, when they performed a surprise cued recollection and recognition test of the stimuli in a drug-free state. As in previous studies, alcohol administered before encoding impaired memory accuracy, whereas alcohol administered after encoding enhanced memory accuracy. Critically, alcohol effects on cued recollection depended on the valence of the emotional stimuli: Its memory-impairing effects during encoding were greatest for emotional stimuli, whereas its memory-enhancing effects during consolidation were greatest for emotionally neutral stimuli. Effects of alcohol on recognition were not related to stimulus valence. This study extends previous findings with memory for neutral stimuli, showing that alcohol differentially affects the encoding and consolidation of memory for emotional stimuli. These effects of alcohol on memory for emotionally salient material may contribute to the development of alcohol-related problems, perhaps by dampening memory for adverse consequences of alcohol consumption.

Source : *P0015*,  
*33671*

## COMPORTEMENT

Thème : **ANTHROPOLOGIE**

Ribadier A., Dorard G., Varescon I.

**Alcool-dépendance, personnalité et symptomatologie anxio-dépressive - Une question de genre ?**

*Alcoologie et Addictologie*, 2015, Vol.37, n°4, 309-317

Mots-clefs :

ANXIETE/DEPRESSION/PERSONNALITE/ALCOOLISME/SEXE/QUESTIONNAIRE/STATUT SOCIO-DEMOGRAPHIQUE/NEVROSE/FACTEUR PREDICTIF/COMPORTEMENT/ANTHROPOLOGIE/PRISE EN CHARGE

Contexte : anxiété et dépression montrent des relations spécifiques avec les dimensions de personnalité qui varient selon le genre. Pourtant, aucune étude ne s'est intéressée à l'analyse de la personnalité et de la symptomatologie anxio-dépressive en fonction du genre chez des sujets alcool-dépendants. L'objectif de cette recherche est d'évaluer ces particularités chez des patients alcool-dépendants comparativement à des sujets témoins.

Méthode : 122 patients (48 femmes, 74 hommes) consultant pour une problématique alcoolique et 185 témoins (87 hommes, 98 femmes) ont répondu à un questionnaire sociodémographique, au *Big five inventory* évaluant la personnalité et à l'*Hospital anxiety and depression scale* mesurant la symptomatologie anxio-dépressive.

Résultats : les patients alcool-dépendants présentent une extraversion et une conscience basses, ainsi qu'un névrosisme élevé. Le névrosisme et les symptômes anxieux sont plus élevés chez les femmes alcool-dépendantes. Le névrosisme et la symptomatologie dépressive élevés, ainsi que le genre sont prédicteurs de l'appartenance au groupe clinique.

Discussion : ces résultats confirment la nécessité d'ajuster les prises en charge selon le genre

dans l'alcool-dépendance. Chez les femmes, la mise en place de stratégies d'adaptation centrées sur le problème et, chez les hommes, l'expression des sentiments permettraient de réduire la consommation d'alcool et ses rechutes.

Source : P0005,  
33574

Thème : **ANTHROPOLOGIE**

da Silva Antero-Jacquemin J., Berthelot G., Marck A., Noirez P., Latouche A., Toussaint J.F.

**Learning From Leaders: Life-span Trends in Olympians and Supercentenarians.**

*Journals of gerontology: BIOLOGICAL SCIENCES*, 2015, Vol.70, n°8, 944-949

Mots-clefs :

EPIDEMIOLOGIE/LONGEVITE/EVOLUTION/MORTALITE/DEMOGRAPHIE/  
AGE/SPORT/BIOLOGIE/ANTHROPOLOGIE

Life-span trends progression has worldwide practical implications as it may affect the sustainability of modern societies. We aimed to describe the secular life-span trends of populations with a propensity to live longer-Olympians and supercentenarians-under two hypotheses: an ongoing life-span extension versus a biologic "probabilistic barrier" limiting further progression. In a study of life-span densities (total number of life durations per birth date), we analyzed 19,012 Olympians and 1,205 supercentenarians deceased between 1900 and 2013. Among most Olympians, we observed a trend toward increased life duration. This trend, however, decelerates at advanced ages leveling off with the upper values with a perennial gap between Olympians and supercentenarians during the whole observation period. Similar tendencies are observed among supercentenarians, and over the last years, a plateau attests to a stable longevity pattern among the longest-lived humans. The common trends between Olympians and supercentenarians indicate similar mortality pressures over both populations that increase with age, scenario better explained by a biologic "barrier" forecast.

Source : TAP 007 582,  
33622

Thème : **COMPORTEMENT**

Antero-Jacquemin J., Rey G., Marc A., Dor F., Haida A., Marck A., Berthelot G., Calmat A., Latouche A., Toussaint J.F.

**Mortality in female and male French Olympians: a 1948-2013 cohort study.**

*The American Journal of Sports Medicine*, 2015, Vol.43, n°6, 1505-1512

Mots-clefs : ACTIVITE

PHYSIQUE/SPORT/SANTE/MORTALITE/FRANCE/FEMME/HOMME/EPIDEMIOLOGIE/PATHOLOGIE

BACKGROUND:

Whereas intense physical activity has been associated with deleterious effects on elite athletes' health, in particular due to cardiovascular anomalies, long-term follow-ups have suggested lower mortality rates among elite athletes. Causes of death for French Olympic athletes and female elite athletes have not been studied.

HYPOTHESIS/PURPOSE:

We aimed to measure overall and disease-specific mortality of French female and male Olympians compared with the French general population. We hypothesize that Olympians, both women and men, have lower mortality rates.

**STUDY DESIGN:**

Cohort study; Level of evidence, 3.

**METHODS:**

French elite athletes (601 women and 1802 men) participating in summer or winter Olympic Games from 1948 to 2010 had their vital status verified by national sources and were followed until 2013. Causes of death were obtained via the National Death registry from 1968 to 2012. Overall and disease-specific mortalities of Olympians were compared with those of the French general population through standardized mortality ratios (SMRs) and 95% CIs. Olympians' observed and expected survivals were illustrated by Kaplan-Meier curves.

**RESULTS:**

At the endpoint of the study, 13 women and 222 men had died. Overall mortality in Olympians compared with that of their compatriots was 51% lower (SMR, 0.49; 95% CI, 0.26-0.85) among women and 49% lower (SMR, 0.51; 95% CI, 0.45-0.59) among men. Olympic athletes' survival is significantly superior to that of the French general population (women,  $P = .03$ ; men,  $P < .001$ ). According to the total deaths occurring from 1968 to 2012 (12 among women, 202 among men), female Olympians died from neoplasm (50.0%), external causes (33.3%), and cardiovascular diseases (16.6%). The main causes of death among men were related to neoplasms (36.1%), cardiovascular diseases (24.3%), and external causes (14.4%). Regarding the main causes of mortality among male Olympic athletes, the SMRs were as follows: 0.55 for neoplasms (95% CI, 0.43-0.69), 0.55 for cardiovascular diseases (95% CI, 0.41-0.73), and 0.66 for external causes (95% CI, 0.44-0.94).

**CONCLUSION:**

French Olympians live longer than their compatriots: A lower overall mortality of similar magnitude is observed among male and female athletes compared with the general population. The main causes of death in French Olympians are neoplasms, cardiovascular diseases, and external causes.

Source : *TAP 007 581*,  
**33621**

**Thème : ETHNOLOGIE**

Cherpitel C.J., Ye Y., Kerr W.

**Relationship of Usual Volume and Heavy Consumption to Risk of Alcohol-Related Injury: Racial/Ethnic Disparities in Four U.S. National Alcohol Surveys.**

*Journal of Studies on Alcohol and Drugs*, **2016**, Vol.77, n°1, 58-67

Mots-clefs : ETHNIE/MODE DE CONSOMMATION/ETATS-UNIS/EPIDEMIOLOGIE/POPULATION BLANCHE/POPULATION NOIRE/POPULATION HISPANIQUE/COMPORTEMENT/STATUT SOCIO-DEMOGRAPHIQUE/STATUT SOCIO-ECONOMIQUE/BLESSURE/RISQUE

National population data on racial/ethnic disparities and risk of alcohol-related injury are scarce. Alcohol-related injury and drinking patterns are examined in a sample of respondents from four (1995, 2000, 2005, 2010) U.S. National Alcohol Surveys using risk function analysis. Self-reported consumption of 15,476 current drinkers was assessed as the average number of drinks consumed monthly and, separately, the frequency of consuming five or

more drinks in a day (5+ days) in the last year. Alcohol-related injury was defined as drinking within 6 hours before the event. Risk curves were defined, separately for Whites, Blacks, and Hispanics, using fractional polynomial regression. Risk was greatest for Hispanics to 110 drinks per month (3-4 drinks per day) and above 240 drinks per month, whereas risk was greatest for Whites between these levels. Blacks were at lower risk at all monthly volume levels when demographic and socioeconomic status characteristics were controlled for. Whites had the highest risk of an alcohol-related injury based on 5+ drinking days at all levels up to nearly daily 5+ drinking, whereas Blacks had the lowest risk at all levels of 5+ drinking. A disparity in alcohol-related injury was found for Hispanics compared with Whites at the same average monthly volume of consumption at lower and higher volume levels, but not at the same number of 5+ drinking days, and a lower risk of alcohol-related injury was found for Blacks for both consumption measures when demographic and socioeconomic status characteristics were taken into account. Although exposure to hazards other than alcohol, which could account for some of the racial/ethnic disparity observed, was not taken into account, these mixed findings suggest this is an important area deserving future research attention.

Source : P0015,  
33668

Thème : **ETHNOLOGIE**

Morrison C., Gruenewald PJ., Ponicki W.R.

**Race, Ethnicity, and Exposure to Alcohol Outlets.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 68-76

Mots-clefs : ETHNIE/MINORITE HISPANIQUE/MINORITE  
AFRICAINNE/POPULATION

BLANCHE/VENTE/REVENU/MARCHE/ECONOMIE/CALIFORNIE/ETATS-  
UNIS

Prior studies suggest that Black and Hispanic minority populations are exposed to greater concentrations of alcohol outlets, potentially contributing to health disparities between these populations and the White majority. We tested the alternative hypothesis that urban economic systems cause outlets to concentrate in low-income areas and, controlling for these effects, lower demand among minority populations leads to fewer outlets. Market potential for alcohol sales, a surrogate for demand, was estimated from survey and census data across census block groups for 50 California cities. Hierarchical Bayesian conditional autoregressive Poisson models then estimated relationships between observed geographic distributions of outlets and the market potential for alcohol, income, population size, and racial and ethnic composition. Market potentials were significantly smaller among lower income Black, Hispanic, and Asian populations. Block groups with greater market potential and lower income had greater concentrations of outlets. When we controlled for these effects, the racial and ethnic group composition of block groups was mostly unrelated to outlet concentrations. Health disparities related to exposure to alcohol outlets are primarily driven by distributions of income and population density across neighborhoods.

Source : P0015,  
33669

Thème : **VIOLENCE**

Stappenbeck C.A., Gulati N.K., Fromme K.

**Daily Associations Between Alcohol Consumption and Dating Violence Perpetration Among Men and Women: Effects of Self-Regulation.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 150-159

Mots-clés : VIOLENCE/COMPORTEMENT/INTOXICATION/ETHANOL/JEUNE ADULTE/CONJOINT/CONTROLE DE SOI/ETATS-UNIS/QUESTIONNAIRE/ALCOOLEMIE

Alcohol intoxication has been associated with dating violence perpetration, defined here as psychological and/or physical violence occurring between young adult dating partners. However, little is known about how the individual variability in the level of alcohol intoxication would influence dating violence perpetration and how sex and self-regulation might influence this association. College-aged men and women ( $N = 146$ ) from a large southwestern U.S. university completed background questionnaires, including the Brief Self-Control Scale, to assess self-regulation and then reported their dating violence perpetration and alcohol consumption using a 90-day Timeline Followback assessment. Their average estimated blood alcohol concentration (eBAC) and their daily deviation from this average were calculated for each of the 90 days to examine the between- and within-person effects of alcohol consumption, respectively. Results of a two-level generalized estimating equation suggest that increases in daily eBAC were associated with an increased likelihood of perpetrating dating violence; however, this association was stronger for those who had a low average eBAC compared with those who had a high average eBAC. For those who had a low average eBAC, higher self-regulation was associated with a lower probability of perpetrating dating violence, whereas among those with a high average eBAC, self-regulation was not associated with dating violence perpetration. Sex did not moderate the association between eBAC and dating violence perpetration. Findings highlight the importance of self-regulation in dating violence perpetration-particularly for those with low average eBACs-and the need for varied intervention strategies, depending on one's typical drinking pattern.

Source : P0015,  
33678

## CONSOMMATION

Thème : **CONSOMMATION EXCESSIVE**

Laconi S., Girard M., Greffioz E., Chabrol H.

**Binge drinking - Exploration dans un échantillon de jeunes adultes par internet**

*Alcoologie et Addictologie*, 2015, Vol.37, n°4, 293-300

Mots-clés : FRANCE/CONSOMMATION EXCESSIVE PONCTUELLE/JEUNE ADULTE/PSYCHOPATHOLOGIE/CONSOMMATION/ETHANOL/NICOTINE/CANNABIS/DEPRESSION/ESTIME DE SOI/PREVALENCE/ALCOOLISME

Contexte : peu étudié en France, le *binge drinking* correspond à une consommation massive et rapide d'alcool. Son évaluation se fait principalement grâce à la quantité d'alcool consommé (minimum de quatre verres pour les femmes et de cinq verres pour les hommes) et la rapidité d'intoxication (en moins de deux heures). Notre objectif était d'explorer le *binge drinking* chez des jeunes adultes français et d'évaluer ses relations avec d'autres symptômes psychopathologiques.

Méthode : 241 participants âgés de 18 à 35 ans ( $M = 23,9$  ;  $DS = 3,3$ ) ont été interrogés sur

leurs consommations d'alcool, de nicotine et de cannabis, ainsi que sur la présence de symptômes dépressifs et leur niveau d'estime de soi.

Résultats : 18 % des participants présentaient des scores suggérant des symptômes significatifs d'alcool-dépendance, et 43 % avaient vécu au moins un épisode de *binge drinking* au cours des deux dernières semaines. L'âge et les symptômes d'alcool-dépendance contribuaient significativement aux scores de *binge drinking* au sein de l'échantillon total.

Discussion : la prévalence élevée du *binge drinking* dans notre échantillon et ses relations avec de nombreux symptômes psychopathologiques accentuent l'importance d'évaluer ce nouveau mode de consommation, notamment en distinguant le genre.

Source : P0005,  
33572

### Thème : **DEBIT DE BOISSONS**

Morrison C., Smith K., Gruenewald P.J., Ponicki W.R., Lee J.P., Cameron P.

**Relating off-premises alcohol outlet density to intentional and unintentional injuries.**  
*Addiction*, 2016, Vol.111, n°1, 56-64

Mots-clefs : VENTE/ETUDE

TRANSVERSALE/AUSTRALIE/VOLUME/BLESSURE/INCIDENCE/RISQUE

This study investigated the hypotheses that (i) intentional and unintentional injuries occur more frequently in areas with greater density of off-premises alcohol outlets; and (ii) larger and chain outlets selling cheaper alcohol contribute more substantially to injury risk than smaller and independent outlets. Ecological cross-sectional. From the 256 Statistical Area level 2 (SA2) census units in Melbourne, Australia, we selected a random sample of 62 units. There were 2119 Statistical Area level 1 (SA1) units nested within the selected SA2 units. The selected units contained 295 off-premises outlets. Two independent observers conducted premises assessments in all off-premises outlets, assessing the volume of alcohol available for sale (paces of shelf space), price (least wine price) and other operating characteristics (chain versus independent, drive-through). Outlet counts, assessed outlet characteristics and other area characteristics (population density, median age, median income, retail zoning) were aggregated within SA1 units. Dependent variables were counts of ambulance attended intentional injuries (assaults, stabbings, shootings) and unintentional injuries (falls, crush injuries and object strikes). In univariable analyses, chain outlets were larger ( $r = 0.383$ ;  $P < 0.001$ ) and sold cheaper alcohol ( $r = -0.484$ ;  $P < 0.001$ ) compared with independent outlets. In Bayesian spatial Poisson models, off-premises outlet density was positively related to both intentional [incidence rate ratio (IRR) = 1.38; 95% credible interval (CI) = 1.19, 1.60] and unintentional injuries (IRR = 1.18; 95% CI = 1.06, 1.30). After disaggregation by outlet characteristics, chain outlet density was also related to both intentional (IRR = 1.35; 95% CI = 1.11, 1.64) and unintentional injuries (IRR = 1.20; 95% CI = 1.08, 1.38). Greater off-premises outlet density is related to greater incidence of traumatic injury, and chain outlets appear to contribute most substantially to traumatic injury risk.

Source : P0007,  
33642

### Thème : **DEBIT DE BOISSONS**

Azar D., White V., Coomber K., Faulkner A., Livingston M., Chikritzhs T., Room R.,

Wakefield M.

**The association between alcohol outlet density and alcohol use among urban and regional Australian adolescents.**

*Addiction*, 2016, Vol.111, n°1, 65-72

Mots-clefs : VENTE/ADOLESCENT/JEUNE/ETUDE  
TRANSVERSALE/AUSTRALIE/REGION/EPIDEMIOLOGIE/RISQUE/CONSOMMATION/ETHANOL/LICENCE

While recent evidence suggests that higher alcohol outlet density is associated with greater alcohol use among adolescents, influence of the four main outlet types on youth drinking within urban and regional communities is unknown. This study provides the first investigation of this relationship. Repeated cross-sectional surveys with random samples of secondary students clustered by school. Mixed-effects logistic regression analyses examined the association between each outlet type and the drinking outcomes, with interaction terms used to test urban/regional differences. Australia, 2002-11. Respondents participating in a triennial survey (aged 12-17 years); 44 897 from urban settings, 23 311 from regional settings. The key outcome measures were past month alcohol use, risky drinking among all students and risky drinking among past week drinkers. For each survey year, students were assigned a postcode-level outlet density (number of licences per 1000 population) for each outlet type (general, on-premise, off-premise, clubs). Interaction terms revealed a significant association between off-premises outlet density and risky drinking among all adolescents in urban (odds ratio = 1.36, 95% confidence interval CI = 1.05-1.75,  $P < 0.05$ ) but not regional areas. Similarly, club density was associated with the drinking outcomes in urban communities only. General and on-premises density was associated with alcohol use and risky drinking among all adolescents. Higher densities of general, on- and off-premises outlets in an adolescent's immediate neighbourhood are related to increased likelihood of alcohol consumption among all adolescents. The density of licensed clubs is associated more strongly with drinking for urban than for regional adolescents.

Source : P0007,  
33643

## CULTURE

Thème : **CULTURE**

Fortin M., Dugas M.

**Conception tridimensionnelle des pratiques collectives de boire et typologies**

*Alcoologie et Addictologie*, 2015, Vol.37, n°4, 285-292

Mots-clefs : ALCOOLOGIE/SOCIETE/MODE DE  
CONSOMMATION/MOTIVATION/SOCIOLOGIE/CULTURE/METHODOLOGIE  
/TYPOLOGIE/COMPORTEMENT

Ce texte présente un cadre conceptuel novateur et trans-disciplinaire en alcoologie afin d'optimiser notre compréhension des modes d'alcoolisation et des types de pratiques collectives de boire dans les sociétés et entre elles. Partant du constat des limites conceptuelles des modèles typologiques développés en alcoologie qui ne permettent pas d'observer toute la complexité des pratiques du boire dans une société, puisqu'ils sont construits principalement à partir de l'usage, ce texte propose de conceptualiser les pratiques collectives de boire comme l'interface de l'usage, des contextes de consommation et des motivations à consommer. L'objectif de cet essai est d'ouvrir la discussion sur la pertinence

d'une approche multidimensionnelle en alcoologie, ainsi qu'une prise de conscience de l'importance des dimensions sociales et culturelles dans le développement de types de buveurs pouvant être intégrées à une conception théorique et méthodologique classique du domaine de l'alcoologie et de la santé publique.

Source : P0005,  
33571

Thème : **PUBLICITE**

Savell E., Fooks G., Gilmore A.B.

**How does the alcohol industry attempt to influence marketing regulations? A systematic review.**

*Addiction*, 2016, Vol.111, n°1, 18-32

Mots-clefs :

INDUSTRIE/MARKETING/INFLUENCE/ETHANOL/TABAC/LITTERATURE/POLITIQUE EN MATIERE D'ALCOOL/POLITIQUE

To systematically review, using a qualitative, narrative synthesis approach, papers examining alcohol industry efforts to influence alcohol marketing policy, and compare with those used by the tobacco industry. Literature searches were conducted between April and July 2011, and updated in March 2013. Papers were included if they: made reference to alcohol industry efforts to influence (a) policy debates concerning marketing regulations, (b) new specific marketing policies or (c) broad alcohol policy which included marketing regulations; were written in English; and concerned the period 1990-2013. Alcohol industry political activity was categorized into strategies/tactics and frames/arguments. Data extraction was undertaken by the lead author and 100% of the papers were fully second-reviewed. Seventeen papers met the review criteria. Five main political strategies and five main frames were identified. The alcohol industry argues against marketing regulation by emphasizing industry responsibility and the effectiveness of self-regulation, questioning the effectiveness of statutory regulation and by focusing on individual responsibility. Arguments relating to industry responsibility are often reinforced through corporate social responsibility activities. The industry primarily conveys its arguments through manipulating the evidence base and by promoting ineffective voluntary codes and non-regulatory initiatives. The alcohol industry's political activity is more varied than existing models of corporate political activity suggest. The industry's opposition to marketing regulation centres on claims that the industry is responsible and that self regulation is effective. There are considerable commonalities between tobacco and alcohol industry political activity, with differences due potentially to differences in policy contexts and perceived industry legitimacy.

Source : P0007,  
33640

Thème : **PUBLICITE**

Ross C.S., Brewer R.D., Jernigan D.H.

**The Potential Impact of a "No-Buy" List on Youth Exposure to Alcohol Advertising on Cable Television.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 7-16

Mots-clefs : PUBLICITE/RECOMMANDATION/TELEVISION/ETATS-

## UNIS/ACHAT/INDUSTRIE/JEUNE

The purpose of this study was to outline a method to improve alcohol industry compliance with its self-regulatory advertising placement guidelines on television with the goal of reducing youth exposure to noncompliant advertisements. Data were sourced from Nielsen (The Nielsen Company, New York, NY) for all alcohol advertisements on television in the United States for 2005-2012. A "no-buy" list, that is a list of cable television programs and networks to be avoided when purchasing alcohol advertising, was devised using three criteria: avoid placements on programs that were noncompliant in the past (serially noncompliant), avoid placements on networks at times of day when youth make up a high proportion of the audience (high-risk network dayparts), and use a "guardbanded" (or more restrictive) composition guideline when placing ads on low-rated programs (low rated). Youth were exposed to 15.1 billion noncompliant advertising impressions from 2005 to 2012, mostly on cable television. Together, the three no-buy list criteria accounted for 99% of 12.9 billion noncompliant advertising exposures on cable television for youth ages 2-20 years. When we evaluated the no-buy list criteria sequentially and mutually exclusively, serially noncompliant ads accounted for 67% of noncompliant exposure, high-risk network-daypart ads accounted for 26%, and low-rated ads accounted for 7%. These findings suggest that the prospective use of the no-buy list criteria when purchasing alcohol advertising could eliminate most noncompliant advertising exposures and could be incorporated into standard post-audit procedures that are widely used by the alcohol industry in assessing exposure to television advertising.

Source : P0015,  
33664

## EFFET DE L'ALCOOL

Thème : EFFET DE L'ALCOOL

Conroy D.A.

**Using Sleep as a Window into Early Brain Recovery from Alcoholism.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1904-1907

Mots-clefs : SOMMEIL/DEPENDANCE/CONSOMMATION

EXCESSIVE/ETHANOL/ABSTINENCE/RECHUTE/SEVRAGE/ELECTROPHYSIOLOGIE/CERVEAU/ELECTROENCEPHALOGRAMME/CERVEAU/EFFET DE L'ALCOOL

IT IS NOW well-known that sleep disturbances are highly prevalent during alcohol abuse and dependence. These sleep disturbances persist well into the period of abstinence and may be associated with relapse (for review, see Brower, 2015). Over at least the last 4 decades (Wagman and Allen, 1975), researchers have been exploring how withdrawal from alcohol affects sleep by examining electrophysiological characteristics of the sleeping brain. Polysomnographically (PSG) defined sleep stages (macroarchitecture) and specific waveforms (microarchitecture) from the sleep electroencephalogram provide a window into the neurochemical changes of the brain induced by alcohol (Brower, 2015; Colrain et al., 2014; Conroy et al., 2010).

Source : P0004,  
33603

**ENFANT**Thème : **ENFANT**

Capaldi D.M., Tiberio S.S., Kerr D.C., Pears K.C.

**The Relationships of Parental Alcohol Versus Tobacco and Marijuana Use With Early Adolescent Onset of Alcohol Use.***Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 95-103

Mots-clefs :

CONSOMMATION/TABAGISME/MARIJUANA/PERE/MERE/FACTEUR  
PREDICTIF/PARENT/ALCOOLISATION/PROGENITURE/AGE DE DEBUT DE  
CONSOMMATION/INITIATION/ENFANT

This study examined whether the use of tobacco and marijuana by fathers or mothers predicted onset of alcohol use in their offspring over and above effects of parental alcohol use. The present study included 146 children of 93 parents (90 fathers and 85 mothers). The fathers were originally recruited as boys to the Oregon Youth Study, a study of community, familial, and individual risk factors for delinquency. Only mothers' but not fathers' alcohol use was associated with children's age at onset. Children's age at onset was predicted by mothers' tobacco use and by the interaction of fathers' marijuana use and alcohol use. These effects were observed when controlling for parental education, child's gender, and also child's antisocial behavior—a general developmental risk factor for substance use onset in adolescence. Mothers' substance use played a major role in childhood onset of alcohol use, yet the role of maternal substance use as a risk factor for their children has previously received less attention than the role of paternal substance use. Also, findings imply that it may be important to identify children of polysubstance-using parents for targeted prevention programs.

Source : P0015,  
33672Thème : **ENFANT**

Rossow I., Keating P., Felix L., McCambridge J.

**Does parental drinking influence children's drinking? A systematic review of prospective cohort studies.***Addiction*, 2016, Vol.111, n°2, 204-217Mots-clefs : PARENT/PROGENITURE/EPIDEMIOLOGIE/FAMILLE/META-  
ANALYSE/COMPORTEMENT/FACTEUR  
PREDICTIF/ADOLESCENT/ALCOOLISATION

To evaluate evidence of the capacity for causal inference in studies of associations between parental and offspring alcohol consumption in the general population. A systematic search for, and narrative analysis of, prospective cohort studies of the consequences of drinking, except where assessed prenatally only, or with clinically derived instruments. Primary outcome measures were alcohol use or related problems in offspring, which were collected at least 3 years after exposure measures of parental drinking. The systematic review included 21 studies comprising 26 354 families or parent-child dyads with quantitative effect measures available for each study. Criteria for capacity of causal inference included (1) theory-driven approach and analysis; (2) analytical rigour; and (3) minimization of sources of bias. Four of the 21 included studies filled several, but not all, criteria and were assessed to have some

capacity for causal inference. These four studies found some evidence that parental drinking predicted drinking behaviour in adolescent offspring. The remaining 17 studies had little or no such capacity. There is a fairly large and consistent literature demonstrating that more parental drinking is associated with more drinking in offspring. Despite this, existing evidence is insufficient to warrant causal inferences at this stage.

Source : P0007,  
33680

## ÉPIDÉMIOLOGIE

Thème : **ÉPIDÉMIOLOGIE**

Beard E., Brown J., West R., Acton C., Brennan A., Drummond C., Hickman M., Holmes J., Kaner E., Lock K., Walmsley M., Michie S.

**Protocol for a national monthly survey of alcohol use in England with 6-month follow-up: 'the Alcohol Toolkit Study'.**

*BMC Public Health*, 2015, n°15, n°230, 13 p.

Mots-clefs : ETHANOL/ETUDE

TRANSVERSALE/ENTRETIEN/ADULTE/ANGLETERRE/ÉPIDÉMIOLOGIE/SU  
IVI/AUDIT/STATUT SOCIO-DEMOGRAPHIQUE/FACTEUR DE  
RISQUE/POPULATION/MODE DE CONSOMMATION/ETUDE DE COHORTE  
BACKGROUND:

Timely tracking of national patterns of alcohol consumption is needed to inform and evaluate strategies and policies aimed at reducing alcohol-related harm. Between 2014 until at least 2017, the Alcohol Toolkit Study (ATS) will provide such tracking data and link these with policy changes and campaigns. By virtue of its connection with the 'Smoking Toolkit Study' (STS), links will also be examined between alcohol and smoking-related behaviour.

METHODS/DESIGN:

The ATS consists of cross-sectional household, computer-assisted interviews of representative samples of adults in England aged 16+. Each month a new sample of approximately 1800 adults complete the survey (~n = 21,600 per year). All respondents who consent to be followed-up are asked to complete a telephone survey 6 months later. The ATS has been funded to collect at least 36 waves of baseline and 6-month follow-up data across a period of 3 years. Questions cover alcohol consumption and related harm (AUDIT), socio-demographic characteristics, attempts to reduce or cease consumption and factors associated with this, and exposure to health professional advice on alcohol. The ATS complements the STS, which has been tracking key performance indicators relating to smoking since 2006. As both the ATS and STS involve the same respondents, it is possible to assess interactions between changes in alcohol and tobacco use. Data analysis will involve:

- 1) Descriptive and exploratory analyses undertaken according to a pre-defined set of principles while allowing scope for pursuing lines of enquiry that arise from prior analyses;
- 2) Hypothesis testing according to pre-specified, published analysis plans. Descriptive data on important trends will be published monthly on a dedicated website:

[www.alcoholinengland.info](http://www.alcoholinengland.info) .

DISCUSSION:

The Alcohol Toolkit Study will improve understanding of population level factors influencing alcohol consumption and be an important resource for policy evaluation and planning.

Source : TAP 007 584,  
33624

## FOIE

Thème : **FOIE**

Llopis M., Cassard A.M., Wrzosek L., Bruneau A., Ferrere G., Puchois V., Martin J.C., Lepage P., Le Roy T., Lefevre L., Langelier B., Cailleux F., Gonzalez-Castro A.M., Rabot S., Gaudin F., Agostini H., Prevot S., Berrebi D., Ciocan D., Jousse C., Naveau S., Gerard P., Perlemuter G.

**Intestinal microbiota contributes to individual susceptibility to alcoholic liver disease.**

*Gut*, **2015**, 10 p.

Mots-clefs : INTESTIN/FOIE/ALCOOLIQUE/HEPATOPATHIE/MODELE ANIMAL/SOURIS/INFLAMMATION/CELLULE NK/LYMPHOCYTE T/CELLULE CD4/FOIE

OBJECTIVE:

There is substantial inter-individual diversity in the susceptibility of alcoholics to liver injury. Alterations of intestinal microbiota (IM) have been reported in alcoholic liver disease (ALD), but the extent to which they are merely a consequence or a cause is unknown. We aimed to demonstrate that a specific dysbiosis contributes to the development of alcoholic hepatitis (AH).

DESIGN:

We humanised germ-free and conventional mice using human IM transplant from alcoholic patients with or without AH. The consequences on alcohol-fed recipient mice were studied.

RESULTS:

A specific dysbiosis was associated with ALD severity in patients. Mice harbouring the IM from a patient with severe AH (sAH) developed more severe liver inflammation with an increased number of liver T lymphocyte subsets and Natural Killer T (NKT) lymphocytes, higher liver necrosis, greater intestinal permeability and higher translocation of bacteria than mice harbouring the IM from an alcoholic patient without AH (noAH). Similarly, CD45+ lymphocyte subsets were increased in visceral adipose tissue, and CD4+T and NKT lymphocytes in mesenteric lymph nodes. The IM associated with sAH and noAH could be distinguished by differences in bacterial abundance and composition. Key deleterious species were associated with sAH while the *Faecalibacterium* genus was associated with noAH. Ursodeoxycholic acid was more abundant in faeces from noAH mice. Additionally, in conventional mice humanised with the IM from an sAH patient, a second subsequent transfer of IM from an noAH patient improved alcohol-induced liver lesions.

CONCLUSIONS:

Individual susceptibility to ALD is substantially driven by IM. It may, therefore, be possible to prevent and manage ALD by IM manipulation.

Source : TAP 007 573,  
33576

Thème : **FOIE**

Ju C., Mandrekar P.

**Macrophages and alcohol-related liver inflammation**

Mots-clefs :

MACROPHAGE/INFLAMMATION/FOIE/HEPATOPATHIE/MONOCYTE

Recent studies have suggested that macrophages have a critical role in the development of alcohol-induced inflammation in the liver. To define the precise pathogenic function of these cells during alcoholic liver disease (ALD), it is extremely important to conduct extensive studies in clinical settings that further elucidate the phenotypic diversity of macrophages in the context of ALD. Research to date already has identified several characteristics of macrophages that underlie the cells' actions, including macrophage polarization and their phenotypic diversity. Other analyses have focused on the contributions of resident versus infiltrating macrophages/monocytes, as well as on the roles of macrophage mediators, in the development of ALD. Findings point to the potential of macrophages as a therapeutic target in alcoholic liver injury. Future studies directed toward understanding how alcohol affects macrophage phenotypic switch in the liver and other tissues, whether the liver microenvironment determines macrophage function in ALD, and if targeting of macrophages alleviates alcoholic liver injury, will provide promising strategies to manage patients with alcoholic hepatitis.

Source : *P0006*,  
**33587**

Thème : **FOIE**

Wang L., Fouts D.E., Starkel P., Hartmann P., Chen P., Llorente C., DePew J., Moncera K., Ho S.B., Brenner D.A., Hooper L.V., Schnabl B.

**Intestinal REG3 Lectins Protect against Alcoholic Steatohepatitis by Reducing Mucosa-Associated Microbiota and Preventing Bacterial Translocation.**

*Cell host and microbe*, 2016, Vol.19, n°2, 227-239

Mots-clefs : BACTERIE/FIBROSE/FOIE/INTESTIN/INGESTION

CHRONIQUE/ETHANOL/STEATOSE/EPITHELIUM/HEPATOPATHIE

Approximately half of all deaths from liver cirrhosis, the tenth leading cause of mortality in the United States, are related to alcohol use. Chronic alcohol consumption is accompanied by intestinal dysbiosis and bacterial overgrowth, yet little is known about the factors that alter the microbial composition or their contribution to liver disease. We previously associated chronic alcohol consumption with lower intestinal levels of the antimicrobial-regenerating islet-derived (REG)-3 lectins. Here, we demonstrate that intestinal deficiency in REG3B or REG3G increases numbers of mucosa-associated bacteria and enhances bacterial translocation to the mesenteric lymph nodes and liver, promoting the progression of ethanol-induced fatty liver disease toward steatohepatitis. Overexpression of Reg3g in intestinal epithelial cells restricts bacterial colonization of mucosal surfaces, reduces bacterial translocation, and protects mice from alcohol-induced steatohepatitis. Thus, alcohol appears to impair control of the mucosa-associated microbiota, and subsequent breach of the mucosal barrier facilitates progression of alcoholic liver disease.

Source : *TAP 007 590*,  
**33655**

## GÉNÉTIQUE

Thème : **GENETIQUE**

Summa K.C., Jiang P., Fitzpatrick K., Voigt R.M., Bowers S.J., Forsyth C.B., Vitaterna M.H., Keshavarzian A., Turek F.W.

**Chronic Alcohol Exposure and the Circadian *Clock* Mutation Exert Tissue-Specific Effects on Gene Expression in Mouse Hippocampus, Liver, and Proximal Colon.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1917-1929

Mots-clefs : RYTHME CIRCADIEN/FOIE/ETHANOL/MODELE ANIMAL/SOURIS/COLON/GENE/GENOTYPE/GENETIQUE/HIPPOCAMPE/INFLAMMATION/VULNERABILITE/MUTATION

Chronic alcohol exposure exerts numerous adverse effects, although the specific mechanisms underlying these negative effects on different tissues are not completely understood. Alcohol also affects core properties of the circadian clock system, and it has been shown that disruption of circadian rhythms confers vulnerability to alcohol-induced pathology of the gastrointestinal barrier and liver. Despite these findings, little is known of the molecular interactions between alcohol and the circadian clock system, especially regarding implications for tissue-specific susceptibility to alcohol pathologies. The aim of this study was to identify changes in expression of genes relevant to alcohol pathologies and circadian clock function in different tissues in response to chronic alcohol intake. Wild-type and circadian *Clock*( $\Delta 19$ ) mutant mice were subjected to a 10-week chronic alcohol protocol, after which hippocampal, liver, and proximal colon tissues were harvested for gene expression analysis using a custom-designed multiplex magnetic bead hybridization assay that provided quantitative assessment of 80 mRNA targets of interest, including 5 housekeeping genes and a predetermined set of 75 genes relevant for alcohol pathology and circadian clock function. Significant alterations in expression levels attributable to genotype, alcohol, and/or a genotype by alcohol interaction were observed in all 3 tissues, with distinct patterns of expression changes observed in each. Of particular interest was the finding that a high proportion of genes involved in inflammation and metabolism on the array was significantly affected by alcohol and the *Clock*( $\Delta 19$ ) mutation in the hippocampus, suggesting a suite of molecular changes that may contribute to pathological change. These results reveal the tissue-specific nature of gene expression responses to chronic alcohol exposure and the *Clock*( $\Delta 19$ ) mutation and identify specific expression profiles that may contribute to tissue-specific vulnerability to alcohol-induced injury in the brain, colon, and liver.

Source : P0004,  
33605

Thème : **GENETIQUE**

López-Moreno J.A., Marcos M., Calleja-Conde J., Echeverry-Alzate V., Bühler K.M., Costa-Alba P., Bernardo E., Laso F.J., Rodríguez de Fonseca F., Nadal R., Viveros M.P., Maldonado R., Giné E.

**Histone Deacetylase Gene Expression Following Binge Alcohol Consumption in Rats and Humans.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1939-1950

Mots-clefs : CONSOMMATION EXCESSIVE

PONCTUELLE/HISTONE/GENE/EXPRESSION GENIQUE/MODELE  
ANIMAL/RAT/ETRE  
HUMAIN/SANG/COEUR/AMYGDAL/FOIE/ALCOOLEMIE/INGESTION  
CHRONIQUE

Alcohol binge drinking is one of the most common patterns of excessive alcohol use and recent data would suggest that histone deacetylases (*HDACs*) gene expression profiling could be useful as a biomarker for psychiatric disorders. This study aimed to characterize the gene expression patterns of *Hdac* 1-11 in samples of rat peripheral blood, liver, heart, prefrontal cortex, and amygdala following repeated binge alcohol consumption and to determine the parallelism of *Hdac* gene expression between rats and humans in peripheral blood. To accomplish this goal, we examined *Hdac* gene expression following 1, 4, or 8 alcohol binges (3 g/kg, orally) in the rat, in patients who were admitted to the hospital emergency department for acute alcohol intoxication, and in rats trained in daily operant alcohol self-administration. We primarily found that acute alcohol bingeing reduced gene expression (*Hdac*1-10) in the peripheral blood of alcohol-naïve rats and that this effect was attenuated following repeated alcohol binges. There was also a reduction of *Hdac* gene expression in the liver (*Hdac*2,4,5), whereas there was increased expression in the heart (*Hdac*1,7,8) and amygdala (*Hdac*1,2,5). Additionally, increased blood alcohol concentrations were measured in rat blood at 1 to 4 hours following repeated alcohol bingeing, and the only group that developed hepatic steatosis (fatty liver) were those animals exposed to 8 alcohol binge events. Finally, both binge consumption of alcohol in humans and daily operant alcohol self-administration in rats increased *Hdac* gene expression in peripheral blood. Our results suggest that increases in *HDAC* gene expression within the peripheral blood are associated with chronic alcohol consumption, whereas *HDAC* gene expression is reduced following initial exposure to alcohol.

Source : P0004,  
33607

### Thème : **GENETIQUE**

Bach P., Kirsch M., Hoffmann S., Jorde A., Mann K., Frank J., Charlet K., Beck A., Heinz A., Walter H., Rietschel M., Kiefer F., Vollstädt-Klein S.

**The effects of single nucleotide polymorphisms in glutamatergic neurotransmission genes on neural response to alcohol cues and craving.**

*Addiction Biology*, 2015, Vol.20, n°6, 1022-1032

Mots-clés :

GENOTYPE/NUCLEOTIDE/POLYMORPHISME/GENETIQUE/IRM/CORTEX/CERVEAU/ALLELE/RECHUTE/GENE/BESOIN IRREPRESSIBLE

The aim of the current study was to determine genotype effects of four single nucleotide polymorphisms (SNPs) in the genes of the N-Methyl-d-aspartate receptor (*GRIN1*, *GRIN2A*, *GRIN2C*) and kainate receptor (*GRIK1*), which have been previously associated with alcoholism, on behavior, neural cue-reactivity and drinking outcome. Eighty-six abstinent alcohol dependent patients were recruited from an in-patient setting.

Neuropsychological tests, genotyping and functional magnetic resonance imaging (fMRI) were used to study genotype effects. *GRIN2C* risk allele carriers displayed increased alcohol cue-induced activation in the anterior cingulate cortex (ACC) and dorsolateral prefrontal cortex (dlPFC). Neural activation in the ACC positively correlated with craving for alcohol ( $r = 0.201$ ,  $P = 0.032$ ), whereas activation in the dlPFC showed a negative association ( $r = -0.215$ ,  $P = 0.023$ ). In addition, dlPFC activation predicted time to first relapse (HR = 2.701,

95%CI 1.244-5.864,  $P = 0.012$ ). *GRIK1* risk allele carriers showed increased cue-induced activation in the medial prefrontal (PFC) and orbitofrontal cortex (OFC) and in the lateral PFC and OFC. Activation in both clusters positively correlated with alcohol craving (rmedOFC, medPFC = 0.403,  $P = 0.001$ , rlatOFC, latPFC = 0.282,  $P = 0.008$ ), and activation in the cluster that encompassed the medial OFC predicted time to first relapse (HR = 1.911, 95%CI 1.030-3.545,  $P = 0.040$ ). Findings indicate that SNPs in the *GRIN2C* and *GRIK1* genes are associated with altered cue-induced brain activation that is related to craving for alcohol and relapse risk.

Source : P0054,  
33631

Thème : **GENETIQUE**

Sipilä P., Rose R.J., Kaprio J.

**Drinking and mortality: long-term follow-up of drinking-discordant twin pairs.**

*Addiction*, 2016, Vol.111, n°2, 245-254

Mots-clés :

MORTALITÉ/CONSOMMATION/ETHANOL/JUMENT/MONOZYGOTE/GENETIQUE/SUIVI/FINLANDE/QUESTIONNAIRE

To determine if associations of alcohol consumption with all-cause mortality replicate in discordant monozygotic twin comparisons that control for familial and genetic confounds. A 30-year prospective follow-up. Population-based older Finnish twin cohort. Same-sex twins, aged 24-60 years at the end of 1981, without overt comorbidities, completed questionnaires in 1975 and 1981 with response rates of 89 and 84%. A total of 15 607 twins were available for mortality follow-up from the date of returned 1981 questionnaires to 31 December 2011; 14 787 twins with complete information were analysed. Self-reported monthly alcohol consumption, heavy drinking occasions (HDO) and alcohol-induced blackouts. Adjustments for age, gender, marital and smoking status, physical activity, obesity, education and social class. Among twins as individuals, high levels of monthly alcohol consumption ( $\geq 259$  g/month) associated with earlier mortality [hazard ratio (HR) = 1.63, 95% confidence interval (CI) = 1.47-1.81]. That association was replicated in comparisons of all informatively drinking-discordant twin pairs (HR = 1.91, 95% CI = 1.49-2.45) and within discordant monozygotic (MZ) twin pairs (HR = 2.24, 95% CI = 1.31-3.85), with comparable effect size. Smaller samples of MZ twins discordant for HDO and blackouts limited power; a significant association with mortality was found for multiple blackouts (HR = 2.82, 95% CI = 1.30-6.08), but not for HDO. The associations of high levels of monthly alcohol consumption and alcohol-induced blackouts with increased all-cause mortality among Finnish twins cannot be explained by familial or genetic confounds; the explanation appears to be causal.

Source : P0007,  
33682

## **IMMUNITÉ-IMMUNOCYTOLOGIE-IMMUNOLOGIE**

Thème : **IMMUNITÉ - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Szabo G., Saha B.

**Alcohol's effect on host defense**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 159-170

Mots-clefs : SYSTEME IMMUNITAIRE/EFFET DE

L'ALCOOL/INFLAMMATION/VIRUS/BACTERIE/CYTOKINE/PATHOGENESE

Alcohol affects many organs, including the immune system, with even moderate amounts of alcohol influencing immune responses. Although alcohol can alter the actions of all cell populations involved in the innate and adaptive immune responses, the effect in many cases is a subclinical immunosuppression that becomes clinically relevant only after a secondary insult (e.g., bacterial or viral infection or other tissue damage). Alcohol's specific effects on the innate immune system depend on the pattern of alcohol exposure, with acute alcohol inhibiting and chronic alcohol accelerating inflammatory responses. The proinflammatory effects of chronic alcohol play a major role in the pathogenesis of alcoholic liver disease and pancreatitis, but also affect numerous other organs and tissues. In addition to promoting proinflammatory immune responses, alcohol also impairs anti-inflammatory cytokines. Chronic alcohol exposure also interferes with the normal functioning of all aspects of the adaptive immune response, including both cell-mediated and humoral responses. All of these effects enhance the susceptibility of chronic alcoholics to viral and bacterial infections and to sterile inflammation.

Source : P0006,  
33580

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Trevejo-Nunez G., Kolls J.K., de Wit M.

**Alcohol use as a risk factor in infections and healing**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 177-184

Mots-clefs : INFECTION/ALCOOLIQUE/IMMUNOLOGIE/SYSTEME

IMMUNITAIRE/INTOXICATION/SYSTEME RESPIRATOIRE/EFFET DE

L'ALCOOL

Physicians have recognized for more than a century that alcohol use is associated with infections and that alcoholics are especially at risk for pneumonia. Clear evidence now indicates that alcohol has a systemic effect on every organ. This review first presents a clinical case to describe a patient with immunity issues complicated by alcohol use—a setting familiar to many clinicians. This is followed by a description of the molecular mechanisms that explain the secondary immune deficiency produced by alcohol in the host, focusing mostly on the gut and lower respiratory mucosal immunity. The goal of this review is to increase awareness of the new mechanisms being investigated to understand how alcohol affects the human immune system and the development of new strategies to attenuate adverse outcomes in the affected population.

Source : P0006,  
33581

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Pasala S., Barr T., Messaoudi L.

**Impact of alcohol abuse on the adaptive immune system**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 185-197

Mots-clefs : CONSOMMATION EXCESSIVE/ETHANOL/SYSTEME IMMUNITAIRE/LYMPHOCYTE

T/ANTICORPS/APOPTOSE/RISQUE/VACCIN/CONSOMMATION MODEREE

Alcohol exposure, and particularly chronic heavy drinking, affects all components of the adaptive immune system. Studies both in humans and in animal models determined that chronic alcohol abuse reduces the number of peripheral T cells, disrupts the balance between different T-cell types, influences T-cell activation, impairs T-cell functioning, and promotes T-cell apoptosis. Chronic alcohol exposure also seems to cause loss of peripheral B cells, while simultaneously inducing increased production of immunoglobulins. In particular, the levels of antibodies against liver-specific autoantigens are increased in patients with alcoholic liver disease and may promote alcohol-related liver damage. Finally, chronic alcohol exposure in utero interferes with normal T-cell and B-cell development, which may increase the risk of infections during both childhood and adulthood. Alcohol's impact on T cells and B cells increases the risk of infections (e.g., pneumonia, HIV infection, hepatitis C virus infection, and tuberculosis), impairs responses to vaccinations against such infections, exacerbates cancer risk, and interferes with delayed-type hypersensitivity. In contrast to these deleterious effects of heavy alcohol exposure, moderate alcohol consumption may have beneficial effects on the adaptive immune system, including improved responses to vaccination and infection. The molecular mechanisms underlying ethanol's impact on the adaptive immune system remain poorly understood.

Source : P0006,  
33582

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Simet S.M., Sisson J.H.

**Alcohol's effects on lung health and immunity**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 199-208

Mots-clefs : POUMON/CONSOMMATION

EXCESSIVE/ETHANOL/PNEUMONIE/TUBERCULOSE/SYSTEME

RESPIRATOIRE/INFECTION/LYMPHOCYTE/MACROPHAGE/IMMUNOLOGIE /PROBLEME LIE A L'ALCOOL/PHYSIOPATHOLOGIE

It has long been known that people with alcohol use disorder (AUD) not only may develop physical dependence but also may experience devastating long-term health problems. The most common and identifiable alcohol-associated health problems include liver cirrhosis, pancreatitis, cardiomyopathies, neuropathies, and dementia. However, the lung also is adversely affected by alcohol abuse, a fact often overlooked by clinicians and the public. Individuals with AUD are more likely to develop pneumonia, tuberculosis (TB), respiratory syncytial virus (RSV) infection, and acute respiratory distress syndrome (ARDS). Increased susceptibility to these and other pulmonary infections is caused by impaired immune responses in people with AUD. The key immune cells involved in combating pulmonary conditions such as pneumonia, TB, RSV infection, and ARDS are neutrophils, lymphocytes, alveolar macrophages, and the cells responsible for innate immune responses. Researchers are only now beginning to understand how alcohol affects these cells and how these effects contribute to the pathophysiology of pulmonary diseases in people with AUD.

Source : P0006,  
33583

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Hammer A.M., Morris N.L., Earley Z.M., Choudhry M.A.

**The first line of defense - The effects of alcohol on post-burn intestinal barrier, immune cells, and microbiome**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 209-222

Mots-clefs : INTESTIN/BACTERIE/EFFET DE

L'ALCOOL/EPITHELIUM/IMMUNOLOGIE/LYMPHOCYTE T/NEUTROPHILE

Alcohol (ethanol) is one of the most globally abused substances, and is one of the leading causes of premature death in the world. As a result of its complexity and direct contact with ingested alcohol, the intestine represents the primary source from which alcohol-associated pathologies stem. The gut is the largest reservoir of bacteria in the body, and under healthy conditions, it maintains a barrier preventing bacteria from translocating out of the intestinal lumen. The intestinal barrier is compromised following alcohol exposure, which can lead to life-threatening systemic complications including sepsis and multiple organ failure.

Furthermore, alcohol is a major confounding factor in pathology associated with trauma.

Experimental data from both human and animal studies suggest that alcohol perturbs the intestinal barrier and its function, which is exacerbated by a “second hit” from traumatic injury. This article highlights the role of alcohol-mediated alterations of the intestinal epithelia and its defense against bacteria within the gut, and the impact of alcohol on intestinal immunity, specifically on T cells and neutrophils. Finally, it discusses how the gut microbiome both contributes to and protects the intestines from dysbiosis after alcohol exposure and trauma.

Source : P0006,

33584

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Engen P.A., Green S.J., Voigt R.M., Forsyth C.B., Keshavarzian A.

**The gastrointestinal microbiome - Alcohol effects on the composition of intestinal microbiota**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 223-236

Mots-clefs : CONSOMMATION EXCESSIVE/ETHANOL/STRESS

OXYDATIF/INTESTIN/INFLAMMATION/EFFET DE L'ALCOOL

The excessive use of alcohol is a global problem causing many adverse pathological health effects and a significant financial health care burden. This review addresses the effect of alcohol consumption on the microbiota in the gastrointestinal tract (GIT). Although data are limited in humans, studies highlight the importance of changes in the intestinal microbiota in alcohol-related disorders. Alcohol-induced changes in the GIT microbiota composition and metabolic function may contribute to the well-established link between alcohol-induced oxidative stress, intestinal hyperpermeability to luminal bacterial products, and the subsequent development of alcoholic liver disease (ALD), as well as other diseases. In addition, clinical and preclinical data suggest that alcohol-related disorders are associated with quantitative and qualitative dysbiotic changes in the intestinal microbiota and may be associated with increased GIT inflammation, intestinal hyperpermeability resulting in endotoxemia, systemic inflammation, and tissue damage/organ pathologies including ALD. Thus, gut-directed interventions, such as probiotic and synbiotic modulation of the intestinal microbiota, should be considered and evaluated for prevention and treatment of alcohol-

associated pathologies.

Source : P0006,  
33585

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Nagy L.E.

**The role of innate immunity in alcoholic liver disease**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 237-250

Mots-clefs : SYSTEME IMMUNITAIRE/CONSOMMATION

EXCESSIVE/ETHANOL/FOIE/IMMUNOLOGIE/CYTOKINE/INTERLEUKINE/  
INFLAMMATION/DYSFONCTIONNEMENT/HEPATOPATHIE

The innate immune system represents the first-line response to invading microbes, tissue damage, or aberrant cell growth. Many of the proteins and cells involved in innate immunity are produced by, and reside in, the liver. This abundance in immune cells and proteins reflects the liver's adaptation to various immune challenges but also makes the organ particularly vulnerable to alcohol's effects. Heavy alcohol consumption may produce leakage of microbes and microbial products from the gastrointestinal tract, which quickly reach the liver via the portal vein. Exposure to these immune challenges and to alcohol and its breakdown products dysregulates the liver's normally fine-tuned immune signaling pathways, leading to activation of various cellular sensors of pathogen- or damage-associated molecular patterns. The ensuing expression of pro-inflammatory cytokines (e.g., tumor necrosis factor  $\alpha$  [TNF $\alpha$ ], interleukin [IL]-8, and IL-1 $\beta$ ) results in cellular dysfunction that contributes to alcoholic liver disease (ALD). Investigations into the roles of the various components of liver innate immunity in ALD have begun to uncover the molecular basis of this disease. Further progress in this area may help inform the development of interventions targeting the innate system to augment current treatments of ALD. These treatments could include antibodies against pro-inflammatory cytokines, use of anti-inflammatory cytokines, or suppression of alcohol-induced epigenetic regulators of innate immunity.

Source : P0006,  
33586

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Molina P.E., Katz P.S., Souza-Smith F., Ford S.M., Teng S.X., Dodd T.Y., Maxi J.K.,  
Mayeux J.P.

**Alcohol's burden on immunity following brain, hemorrhagic shock, or traumatic brain injury**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 263-278

Mots-clefs :

MORBIDITE/CONSOMMATION/ETHANOL/MORTALITE/GUERISON/BLESSURE/SYSTEME IMMUNITAIRE/BACTERIE/TRAUMATISME

Alcohol consumption contributes to increased incidence and severity of traumatic injury. Compared with patients who do not consume alcohol, alcohol-consuming patients have higher rates of long-term morbidity and mortality during recovery from injury. This can be attributed in part to an impaired immune response in individuals who consume alcohol. Acute and chronic alcohol use can affect both the innate and adaptive immune defense

responses within multiple organ systems; the combination of alcohol use and injury results in increased susceptibility to bacterial and viral pathogens. This review examines the major deleterious effects of alcohol on immunity following tissue damage or traumatic injury, with a focus on alcohol's influence on the ability of the immune and major organ systems to fight disease and to repair damaged tissues following injury.

Source : P0006,  
33588

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Boby G.J., Amedee A.M., Siggins R.W., Molina P.E., Nelson S., Veazey R.S.

**Alcohol and HIV effects on the immune system**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 287-297

Mots-clefs : VIH/SYSTEME IMMUNITAIRE/PATHOLOGIE/INTESTIN/EFFET DE L'ALCOOL/POUMON/MUQUEUSE

HIV disease and alcohol independently influence the human immune system, so it stands to reason that, together, their influence may be additive. Here, we review the evidence that alcohol can exacerbate HIV's influence on the immune system, thereby affecting disease progression and transmission. We focus particularly on alcohol's effect on the mucosal immune system in the tissues of the gastrointestinal tract, the genital tract and the lungs, all of which play a role in transmission and progression of HIV disease.

Source : P0006,  
33590

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Costa Matos L.

**What About Lymphocytes?**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1901-1903

Mots-clefs : HEPATOPATHIE/FOIE/INFLAMMATION/SYSTEME IMMUNITAIRE/LIPOPOLYSACCHARIDE/CELLULE DE KUPFFER/INTERFERON/TNF-ALPHA/PROSTAGLANDINE/FACTEUR DE CROISSANCE/LYMPHOCYTE/INTERFERON/LYMPHOCYTE T/IMMUNOLOGIE

ALCOHOLIC LIVER DISEASE (ALD) involves inflammation, and it is widely accepted that immune system activation is relevant for alcoholic steatohepatitis pathogenesis and ALD progression. Gram-negative bacteria lipopolysaccharides reaches portal blood and stimulates liver Kupffer cells, by activation of Toll-like receptor 4 and CD14 (Purohit et al., 2008; Thurman, 1998). This causes a down-stream cascade of intracellular events, namely the activation of nuclear factor kappa B, activator protein 1, interferon (IFN) regulatory factors, and the alteration of pro-caspases 3 and 8 and c-Jun N-terminal kinase. Those events lead to the production of tumor necrosis factor (TNF)- $\alpha$ ; interleukins (IL)-1 $\beta$ , -6, -8, -12, and -18; prostaglandins E2 and D; transforming growth factor  $\beta$ ; and leukotrienes. All of these changes cause polymorphonuclear neutrophil recruitment, increased production of cellular adhesion molecules, increased oxidative stress, and activation of hepatic stellate cells, leading to increased collagen deposition (Han, 2002; Neuman, 2003; Soares et al., 2010).

Source : *P0004*,  
*33602*

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Johansson E.M., Garcia-Gutierrez M.S., Moscoso-Castro M., Manzanares J., Valverde O.  
**Reduced Contextual Discrimination following Alcohol Consumption or MDMA Administration in Mice.**

*PLoS One*, **2015**, Vol.10, n°11, e0142978

Mots-clés :

ECSTASY/COGNITION/COMPORTEMENT/CERVEAU/HIPPOCAMPE/ANXIÉTÉ/INFLAMMATION/MODELE ANIMAL/RONGEUR/INTERLEUKINE/BDNF/DEPRESSION/ETHANOL/IMMUNOLOGIE

The recreational drugs, alcohol and 3,4-Methylenedioxyamphetamine (MDMA, "Ecstasy") have both been shown to cause immune activation *in vivo*, and they are linked to cognitive impairment and anxiety-like behaviors in rodents. The neuronal effects of these drugs in the hippocampal area, an area that has been a focus of studies aiming to explain the mechanisms underlying anxiety related-disorders, remains poorly understood. Therefore we investigated the specific inflammatory impact of alcohol and MDMA on this area of the brain and on a hippocampal-related behavioral task. We centered our study on two inflammatory factors linked to anxiety-related disorders, namely Interleukin-1 $\beta$  (IL-1 $\beta$ ) and brain-derived neurotrophic factor (BDNF). We subjected drug-consuming mice to a battery of behavioral tests to evaluate general activity, anxiety-like and depressive-like behaviors. We then introduced them to a contextual fear discrimination task and immune-related effects were examined by immunohistochemical and biochemical studies. Our results suggest that there is a relationship between the induction of immune activated pathways by voluntary alcohol consumption and a high-dose MDMA. Furthermore, the ability of mice to perform a contextual fear discrimination task was impaired by drug consumption and we report long term inflammatory alterations in the hippocampus even several weeks after drug intake. This information will be helpful for discovering new selective drug targets, and to develop treatments and preventive approaches for patients with anxiety-related disorders.

Source : *TAP 007 580*,  
*33620*

Thème : **IMMUNITE - IMMUNOCYTOLOGIE - IMMUNOLOGIE**

Katz P.S., Siggins R.W., Porretta C., Armstrong M.L., Zea A.H., Mercante D.E., Parsons C., Veazey R.S., Bagby G.J., Nelson S., Molina P.E., Welsh D.A.

**Chronic alcohol increases CD8+ T-cell immunosenescence in simian immunodeficiency virus-infected rhesus macaques.**

*Alcohol*, **2015**, Vol.49, n°8, 759-765

Mots-clés : CELLULE CD8/INFLAMMATION/VIH/SYSTEME IMMUNITAIRE/LYMPHOCYTE T/IMMUNOLOGIE/CONSOMMATION EXCESSIVE PONCTUELLE/MODELE ANIMAL/SINGE/AUDIT

Activated CD8+ T-cells correlate with viral load and may foretell antiretroviral therapy (ART) failure. HIV infection has been suggested to accelerate immunosenescence through chronic persistent inflammation. Alcohol-use disorders (AUD) are prevalent in persons

living with HIV/AIDS (PLWHA). We tested the hypothesis that hazardous alcohol consumption accelerates immune activation and immunosenescence. Immune activation and immunosenescence were examined in CD8<sup>+</sup> T lymphocytes (CD3<sup>+</sup>CD4<sup>-</sup>CD8<sup>+</sup>) isolated from intestinal biopsies, axillary lymph nodes, and peripheral blood mononuclear cells (PBMCs) of chronic binge alcohol (CBA)-consuming simian immunodeficiency virus (SIV)-infected male rhesus macaques with and without antiretroviral therapy (ART; CBA/ART<sup>+</sup>, CBA/ART<sup>-</sup>) and in PBMCs isolated from a cohort of PLWHA. Polychromatic flow cytometry was used to phenotype cells isolated from intestinal biopsies, lymph nodes, and peripheral blood from rhesus macaques and PLWHA. The Alcohol Use Disorders Identification Test (AUDIT) identified hazardous alcohol drinking in PLWHA. Viral load was determined by RT-qPCR and telomere length was measured using qPCR. PBMC CD8<sup>+</sup> T-cell activation (CD38<sup>+</sup>HLA-DR<sup>+</sup>) and immunosenescence (CD28<sup>-</sup>) were increased over baseline levels (857% ± 334,  $p < 0.05$ ; 398% ± 80,  $p < 0.05$ , respectively) only in CBA animals not receiving ART. Viral load correlated with CD8<sup>+</sup> T-cell immunosenescence in macaque PBMCs ( $r_s = 0.49$ ,  $p = 0.02$ ). Activated immunosenescent T-cell (CD8<sup>+</sup>CD38<sup>+</sup>CD28<sup>-</sup>) frequencies in PBMCs from PLWHA significantly correlated with AUDIT scores ( $r_s = 0.75$ ,  $p = 0.001$ ), while no correlation was observed with CD4<sup>+</sup> T-cell and AUDIT scores ( $r_s = -0.24$ ,  $p = 0.38$ ). Activated immunosenescent T-cells had shorter telomeres than CD8<sup>+</sup> T-cells (CD8<sup>+</sup>CD28<sup>+</sup>) from PLWHA. Our results suggest that CBA and AUD augment immune activation and immunosenescence in SIV-infected macaques and PLWHA.

Source : P0002,  
33645

## JEUNE

Thème : **JEUNE**

Spilka S., Ehlinger V., Le Nezet O., Pacoricona D., Ngantcha M., Godeau E.  
**Alcool, tabac et cannabis en 2014, durant les "années collège"**  
*Tendances*, 2015, n°106, 6 p.

Mots-clefs : JEUNE/ADOLESCENT/ENQUETE  
HBSC/ETHANOL/TABAC/CANNABIS/MILIEU  
SCOLAIRE/EVOLUTION/CONSOMMATION/IVRESSE/CONSOMMATION  
EXCESSIVE PONCTUELLE/DISCRIMINATION DES  
BOISSONS/EXPERIMENTATION/SEXE/FRANCE

En 2012, l'OFDT publiait pour la première fois, grâce à l'enquête européenne HBSC 2010, un état des lieux des niveaux de consommation d'alcool, de tabac et de cannabis parmi les collégiens français. En 2014, un nouvel exercice de l'enquête a permis d'actualiser ces données et d'examiner leur évolution, tout en abordant pour la première fois les usages de la cigarette électronique (e-cigarette) et de la chicha.

Présentés dans le n° 106 de *Tendances*, les résultats du volet drogues de l'enquête en France permettent d'établir quelques grands constats :

- Première substance psychoactive expérimentée par les collégiens, l'alcool fait cependant l'objet d'un moindre engouement (expérimentations et usages récents d'alcool en nette baisse en 2014, premières ivresses plus tardives et moins fréquentes qu'en 2010)
- Le tabac, dont l'expérimentation au collège reste largement moins répandue que celle de l'alcool, est la substance la moins sexuellement différenciée même si, dorénavant, les filles présentent une expérimentation inférieure à celle des garçons et un tabagisme quotidien

moins précoce qu'en 2010.

- L'expérimentation de cannabis est restée stable par rapport à 2010. Si elle demeure très rare parmi les plus jeunes (11-13 ans), elle progresse, néanmoins, toujours aussi fortement au fil du collège pour concerner près d'un élève de 3e sur quatre en 2014.

Les niveaux d'expérimentation de la chicha révèlent quant à eux une popularité importante de ce mode d'usage. Enfin, l'usage de la e-cigarette se concentre, tout comme en population adulte, principalement chez les fumeurs de cigarettes.

Source : P0067,  
33579

### Thème : JEUNE

Gonzales K.R., Largo T.W., Miller C., Kanny D., Brewer R.D.

#### **Consumption of Alcoholic Beverages and Liquor Consumption by Michigan High School Students, 2011.**

*Preventing Chronic Disease*, 2015, Vol.12, E194

Mots-clés : LIQUEUR/AGE MINIMUM LEGAL/ETATS-UNIS/ETUDIANT/JEUNE/ADOLESCENT/DISCRIMINATION DES BOISSONS/MICHIGAN/BOISSON ALCOOLISEE/MODE DE CONSOMMATION/CONSOMMATION EXCESSIVE PONCTUELLE/PREVALENCE/VODKA/CONSOMMATION EXCESSIVE INTRODUCTION:

Excessive alcohol consumption was responsible for approximately 4,300 annual deaths in the United States among people younger than 21 from 2006 through 2010. Underage drinking cost the United States \$24.6 billion in 2006. Previous studies have shown that liquor is the most common type of alcohol consumed by high school students. However, little is known about the types of liquor consumed by youth or about the mixing of alcohol with energy drinks.

#### METHODS:

The 2011 Michigan Youth Tobacco Survey was used to assess usual alcohol beverage consumption and liquor consumption and the mixing of alcohol with energy drinks by Michigan high school students. Beverage preferences were analyzed by demographic characteristics and drinking patterns.

#### RESULTS:

Overall, 34.2% of Michigan high school students consumed alcohol in the past month, and 20.8% reported binge drinking. Among current drinkers, liquor was the most common type of alcohol consumed (51.2%), and vodka was the most prevalent type of liquor consumed by those who drank liquor (53.0%). The prevalence of liquor consumption was similar among binge drinkers and nonbinge drinkers, but binge drinkers who drank liquor were significantly more likely than nonbinge drinkers to consume vodka and to mix alcohol with energy drinks (49.0% vs 18.2%, respectively).

#### CONCLUSIONS:

Liquor is the most common type of alcoholic beverage consumed by Michigan high school students; vodka is the most common type of liquor consumed. Mixing alcohol and energy drinks is common, particularly among binge drinkers. *Community Guide* strategies for reducing excessive drinking (eg, increasing alcohol taxes) can reduce underage drinking.

Source : TAP 007 575,  
33594

Thème : **JEUNE**

Reid J.L., Hammond D., McCrory C., Dubin J.A., Leatherdale S.T.

**Use of caffeinated energy drinks among secondary school students in Ontario: Prevalence and correlates of using energy drinks and mixing with alcohol.**

*Canadian Journal of Public Health Revue Canadienne de Santé Publique*, **2015**, Vol.106, n°3, e101-e108

Mots-clés : JEUNE/ADOLESCENT/COMPORTEMENT A RISQUE/BOISSON ALCOOLISEE/STATUT SOCIO-DEMOGRAPHIQUE/ONTARIO/FREQUENCE DE CONSOMMATION/CONSOMMATION/MODE DE CONSOMMATION/INDICE DE MASSE CORPORELLE/AGE/SEXE/ETHNIE/CAFEINE/PREVALENCE

OBJECTIFS : Les boissons énergisantes deviennent de plus en plus populaires auprès des jeunes et suscitent des inquiétudes sur leurs effets secondaires possibles, y compris l'augmentation de la consommation d'alcool et des comportements à risques. Nous avons examiné la consommation de boissons énergisantes et la consommation simultanée de boissons énergisantes et d'alcool, ainsi que leurs associations avec des caractéristiques sociodémographiques et comportementales, dans un échantillon d'élèves des écoles secondaires de l'Ontario.

MÉTHODES : Les données d'enquête de 23 610 élèves de la 9<sup>e</sup> à la 12<sup>e</sup> année, fréquentant 43 écoles secondaires de l'Ontario sélectionnées par échantillonnage dirigé et ayant participé à la phase de référence (2012-2013) de l'étude COMPASS, ont été analysées avec des modèles linéaires généralisés à effets mixtes. Les résultats comptabilisés étaient l'utilisation quelconque de boissons énergisantes, la fréquence d'utilisation, et la consommation de boissons énergisantes en combinaison avec l'alcool; les covariables étaient l'âge, le sexe, l'ethnicité, l'argent de poche, l'indice de masse corporelle (IMC), les efforts liés au poids et la consommation d'alcool. Les interactions entre le sexe et d'autres covariables ont été testées.

RÉSULTATS : Près d'un élève sur cinq (18,2 %) a déclaré consommer des boissons énergisantes au cours d'une semaine habituelle. L'utilisation de boissons énergisantes était associée ( $p < 0,01$ ) avec toutes les données sociodémographiques examinées et était plus fréquente chez les élèves de sexe masculin, les Autochtones hors réserve, les élèves qui avaient de l'argent de poche, ceux qui avaient un IMC hors de la zone des « poids santé », ceux qui tentaient de perdre du poids et/ou ceux ayant déclaré une consommation d'alcool élevée. Des interactions avec le sexe ont été observées pour l'âge, l'argent de poche et les efforts liés au poids. La consommation simultanée de boissons énergisantes et d'alcool au cours des 12 mois précédents a été déclarée par 17,3 % de l'échantillon et était associée à l'ethnicité, à l'argent de poche et aux excès occasionnels d'alcool plus fréquents.

CONCLUSION : L'utilisation habituelle de boissons énergisantes était courante dans cet échantillon d'élèves, et fortement liée à la consommation d'alcool.

Source : *TAP 007 579*,  
**33598**

Thème : **JEUNE**

Scaglione N.M., Mallett K.A., Turrise R., Reavy R., Cleveland M.J., Ackerman S.

**Who Will Experience the Most Alcohol Problems in College? The Roles of Middle and High School Drinking Tendencies.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 2039-2046

Mots-clefs : MILIEU

SCOLAIRE/ÉTUDIANT/ÉPIDÉMIOLOGIE/JEUNE/ADOLESCENT/INTERNET/  
QUESTIONNAIRE/AGE DE DÉBUT DE  
CONSOMMATION/IVRESSE/CONSEQUENCE

Previous work examining college drinking tendencies has identified a disproportionately small (20%), but uniquely high-risk group of students who experience nearly 50% of the reported alcohol-related consequences (i.e., the multiple repeated consequences, or MRC, group). With the goal of reducing drinking-related consequences later in college, this study sought to identify potential MRC group members in their first semester by examining: (i) early-risk subgroups based on analysis of early-risk screening constructs (e.g., age of drinking onset, middle school alcohol exposure, high school drinking, and consequences); and (ii) their association with MRC criteria early in the first semester of college. A random sample of 2,021 first-year college student drinkers (56% female) completed a web-based drinking survey in their first semester on campus. Latent class analysis revealed 4 early-risk subgroups: (i) an *early-onset* risk group who endorsed early age of drinking onset and engaged in heavy middle and high school drinking (10%); (ii) a *late-onset risk* group who engaged in weekend drinking and drunkenness and experienced 6 or more unique consequences as seniors in high school (32%); (iii) an *early-onset limited risk* group who only endorsed early age of onset and middle school drinking (3%); and (iv) a *minimal risk* group who did not engage in any early-risk behaviors (55%). Members of both the *early-* and *late-onset risk* groups had significantly higher odds of MRC membership in their first semester of college (9.85 and 6.79 greater, respectively). Results suggest age of onset, middle and high school drinking and drunkenness, and frequency of unique consequences could be particularly useful in brief screening tools. Further, findings support early screening and prevention efforts for MRC membership prior to college matriculation.

Source : P0004,  
33618

Thème : JEUNE

White J., Walton D., Walker N.

**Exploring comorbid use of marijuana, tobacco, and alcohol among 14 to 15-year-olds: findings from a national survey on adolescent substance use.**

*BMC Public Health*, 2015, n°15, n°233, 9 p.

Mots-clefs :

ADOLESCENT/JEUNE/PREVALENCE/COMORBIDITE/MARIJUANA/TABAGIS  
ME/CONSOMMATION EXCESSIVE  
PONCTUELLE/COMPORTEMENT/ÉPIDÉMIOLOGIE/NOUVELLE-  
ZÉLANDE/CONSOMMATION DÉCLARÉE/STATUT SOCIO-  
DEMOGRAPHIQUE/FRÉQUENCE DE CONSOMMATION/SEXE/ETHNIE  
BACKGROUND:

Understanding the patterns of comorbid substance use, particularly among adolescents, is necessary to address resulting harm. This study investigated the prevalence of comorbid use of marijuana, tobacco and binge drinking among 14 to 15-year-olds. The study also examined the relationship between comorbid substance use and behaviour frequency and explored common underlying risk factors for comorbid substance use.

METHODS:

A nationally representative sample of 3,017 New Zealand Year 10 students completed self-

report measures of marijuana use, tobacco use, binge drinking and socio-demographic characteristics in the 2012 Youth Insights Survey (YIS). Weighted population estimates were calculated. Ordinal logistic regression models were constructed to a) investigate the relationship between comorbidity and substance use behaviour frequency, and b) profile those with the greatest degree of comorbid substance use.

#### RESULTS:

In the past month, one-in-twenty (4.7%) students had engaged in all three substance use behaviours, 5.8% in two, and 11.9% in one. Around half of adolescents who had engaged in one had also engaged in another, with three-quarters of tobacco-users also using marijuana and/or binge drinking. Respondents who reported a greater degree of comorbidity were likely to engage in substance use behaviour more frequently. Comorbid substance use was significantly predicted by gender, ethnicity, school decile status, past week income, social connectedness, and parental monitoring and rule enforcement.

#### CONCLUSIONS:

The results identify a core group of adolescents sharing common characteristics who frequently engage in comorbid substance use behaviours. More sophisticated and wider interventions addressing multiple substances are required, especially for marijuana and tobacco use.

Source : *TAP 007 585*,  
**33633**

#### Thème : **JEUNE**

du Roscoät E., Cogordan C., Guignard R., Wilquin J.L., Beck F.

#### **Déterminants des intentions de rester non-consommateur ou de réduire ses consommations d'alcool, de tabac ou de cannabis chez les 15-25 ans.**

*Santé Publique*, 2015, Vol.27, n°5, 641-651

Mots-clefs : JEUNE/ADOLESCENT/STATUT SOCIO-ECONOMIQUE/PSYCHOSOCIOLOGIE/REDUCTION DE CONSOMMATION/ABSTINENCE/CANNABIS/ETHANOL/TABAC/EPIDEMIOLOGIE/QUESTIONNAIRE/EXPERIMENTATION/COMPORTEMENT

Objectif : Cet article vise à identifier chez les jeunes les facteurs sociodémographiques et psychosociaux (issus de la théorie du comportement planifié) associés aux intentions de rester non-fumeur de tabac et non expérimentateur de cannabis, ainsi qu'aux intentions de diminuer sa consommation d'alcool au cours d'une même soirée, d'arrêter sa consommation de tabac et enfin de diminuer sa consommation de cannabis chez les consommateurs.

Méthodes : 3 652 jeunes âgés de 15 à 25 ans ont été interrogés via un questionnaire en ligne. L'échantillon a été recruté au sein d'un access-panel d'internautes et construit selon la méthode des quotas appliquée aux variables sexe, âge, région, habitat et CSP du chef de famille.

Résultats : Chacun des déterminants psychosociaux (attitudes, normes et contrôle) contribue à expliquer l'intention de rester non-consommateur de tabac et/ou de cannabis. La présence d'une norme d'interdiction au sein de la famille est également associée à une moindre intention d'expérimenter le cannabis. Chez les consommateurs, l'attitude détermine l'intention d'arrêt ou de diminution des trois substances (tabac, alcool et cannabis), le contrôle intervient dans l'intention de diminuer sa consommation d'alcool et d'arrêter sa consommation de tabac. Enfin, la norme influence l'intention de réduire sa consommation d'alcool au cours d'une même soirée.

Conclusion : Nos analyses montrent l'intérêt de mesurer les facteurs psychosociaux pour

expliquer les comportements de santé, ainsi que pour identifier et proposer des pistes d'actions. Elles confortent la priorité mise sur la prévention du tabagisme, justifient l'intérêt porté à l'intervention précoce et réaffirment l'utilité de considérer les inégalités sociales de santé dans l'élaboration des programmes de prévention.

Source : P0026,  
33637

**Thème : JEUNE**

Kpozehouen A., Glele Ahanhanzo Y., Noel Paraison M., Munezero F., Saizonou J.Z., Makoutode M., Tinoaga Ouedraogo L.

**Facteurs associés à l'usage de substances psychoactives chez les adolescents au Bénin**

*Santé Publique*, 2015, Vol.27, n°6, 871-880

Mots-clés : JEUNE/ADOLESCENT/BENIN/SUBSTANCE PSYCHOACTIVE/COMPORTEMENT A RISQUE/SANTE PUBLIQUE/PREVALENCE/ETUDE TRANSVERSALE/STATUT SOCIO-DEMOGRAPHIQUE/STATUT SOCIO-ECONOMIQUE/CONSOMMATION EXCESSIVE/TABAGISME/DROGUE/SEXE/FAMILLE/PSYCHOLOGIE/DEPRESSION/ALCOOLISATION

Introduction : L'usage des substances psychoactives chez les adolescents est un problème prioritaire de santé publique. Ce comportement expose à des risques, à des dangers pour la santé et peut entraîner une dépendance. Le présent travail avait pour objectif de déterminer la prévalence et les facteurs associés à l'usage de substances psychoactives dans la zone sanitaire de Ouidah Kpomassè Tori-Bossito au Bénin.

Méthodes : Il s'agit d'une étude transversale, descriptive à visée analytique menée du 1er mai au 15 juillet 2014. Elle a concerné 451 adolescents de 10 à 19 ans sélectionnés par technique de sondage en grappes. Les données ont été collectées en utilisant un questionnaire renseignant sur les facteurs individuels, familiaux et socio-environnementaux des adolescents. Les facteurs associés ont été recherchés par la régression logistique. L'alcool était la substance la plus consommée avec une prévalence du mésusage de 30,1 %, suivi du tabac avec une prévalence de 21,7 % et enfin le cannabis, la cocaïne et l'amphétamine avec les prévalences respectives de 7,7 %, 2,4 % et 3,3 %. Plus d'un adolescent sur dix (16,6 %) consommait deux ou trois substances.

Résultats : Les facteurs associés au mésusage de l'alcool étaient le sexe masculin, le milieu de résidence urbain, le mariage, la dépression, la recherche du plaisir, le fait d'avoir des conflits dans la famille et le fait d'avoir des voisins qui consommaient de l'alcool. Les facteurs liés à la consommation du tabac étaient le sexe masculin, le fait d'appartenir à une famille monoparentale ou d'être orphelin, le désengagement des parents dans l'éducation, le tabagisme des amis et des voisins. La consommation du cannabis, de cocaïne et d'amphétamine était surtout associée au milieu de résidence urbain, à la dépression, l'existence des conflits dans la famille et au désengagement des parents dans l'éducation, à la consommation des drogues par les parents et consommation des drogues illicites par les amis.

Conclusion : Ces résultats ont montré que l'usage des substances psychoactives est préoccupant dans la zone sanitaire Ouidah/Kpomassè/Tori-Bossito. Des interventions de communication pour un changement de comportement, de plaidoyer et de vulgarisation de la législation sur les substances psychoactives devraient être entreprises.

Source : P0026,  
33639

Thème : **JEUNE**

**La consommation d'alcool des jeunes dans les Pays de la Loire 2015**, Décembre, 8 p.

Mots-clefs : JEUNE/ADOLESCENT/CONSOMMATION/ETHANOL/PAYS DE LA LOIRE/CONSOMMATION EXCESSIVE PONCTUELLE/IVRESSE/MODE DE CONSOMMATION/HOSPITALISATION/MORTALITE/MORBIDITE/EVOLUTION/EPIDEMIOLOGIE/ENQUETE ESCAPAD/FRANCE

Les habitudes d'alcoolisation déclarées par les jeunes de 17 ans résidant en Loire-Atlantique sont particulièrement préoccupantes. En 2014, l'usage régulier d'alcool, les alcoolisations ponctuelles importantes et ivresses régulières sont ainsi deux fois plus souvent déclarées par les jeunes du département qu'en moyenne en France. Ce constat concernant la consommation d'alcool des jeunes n'est pas nouveau, mais au cours des années récentes, l'écart avec la moyenne nationale s'est accru. Par contre, les hospitalisations en court séjour liées à une intoxication éthylique aiguë chez les jeunes de Loire-Atlantique ne sont pas plus fréquentes qu'au plan national, et leur nombre tend à diminuer. La situation des jeunes du département s'inscrit dans un contexte global défavorable, comme en témoigne le niveau historiquement élevé des indicateurs de mortalité et de morbidité pour les pathologies liées à l'alcool dans la population générale du département, ainsi que le poids plus important de l'alcool dans les accidents de la route en Loire-Atlantique.

Source : TAP 007 593,  
33661

Thème : **JEUNE**

Fairlie AM., Maggs JL., Lanza ST.

**Profiles of College Drinkers Defined by Alcohol Behaviors at the Week Level: Replication Across Semesters and Prospective Associations With Hazardous Drinking and Dependence-Related Symptoms.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 38-50

Mots-clefs : JEUNE/ADOLESCENT/MILIEU SCOLAIRE/FACTEUR PREDICTIF/COMPORTEMENT/ETATS-UNIS/MODE DE CONSOMMATION/MOTIVATION/DEPENDANCE/TYPOLOGIE

Types of college drinkers have been identified using traditional measures (e.g., 12-month drinking frequency). We used an alternative multidimensional approach based on daily reports of alcohol behaviors to identify college drinker statuses, each with a unique behavioral profile. The current study aimed to (a) identify drinker statuses at the week level across four semesters, (b) examine the predictive utility of drinker status by testing associations with senior-year hazardous drinking and dependence symptoms, and (c) identify concurrent predictors (gender, drinking motivations, hazardous drinking, any dependence symptoms) of senior-year drinker status. We also compared the week-level drinker statuses with drinker statuses identified using traditional measures. A multi-ethnic sample of U.S. college students completed 14-day bursts of daily web surveys across college (91%-96% completed  $\geq 6$  daily reports of the sampled week). Analyses focus on nine alcohol-related behaviors (including estimated blood alcohol concentration, pregaming, and drinking games)

assessed daily in spring/sophomore year to fall/senior year and drinking motivations, hazardous drinking, and dependence symptoms assessed fall/senior year ( $n = 569$ ; 56% women). Four week-level drinker statuses were replicated across semesters: Nondrinker, Light Weekend, Heavy Weekend, and Heavy Frequent. Across semesters, drinker status was associated with senior-year hazardous drinking and any dependence symptoms. Senior-year fun/social motivations were also associated with senior-year drinker status. Differences in behavioral profiles between week-level drinker statuses and those identified using traditional measures were found. Replicable week-level drinker statuses were identified, suggesting consistency in possible types of drinking weeks. Drinker statuses were predictive of senior-year hazardous drinking and dependence symptoms.

Source : P0015,  
33666

Thème : **JEUNE**

Miller M.B., Merrill J.E., Yurasek A.M., Mastroleo N.R., Borsari B.

**Summer Versus School-Year Alcohol Use Among Mandated College Students.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 51-57

Mots-clefs : ETUDIANT/JEUNE/ADOLESCENT/MILIEU  
SCOLAIRE/CONSEQUENCE/SUIVI/MODELE/ALCOOLISATION/MODE DE  
CONSOMMATION

Longitudinal research examining college students' alcohol use during the summer months, especially in at-risk individuals, is limited. The current study evaluated changes in mandated college students' alcohol use and related consequences over the summer. Participants ( $n = 305$ , 67% male) who had violated campus alcohol policy and were subsequently mandated to treatment completed follow-up assessments at 3, 6, and 9 months. For the majority of students, one of these follow-up assessments occurred over the summer. Hierarchical linear modeling was used to examine changes in alcohol use and related consequences during the school year and summer. Participants reported consuming significantly fewer drinks per occasion, reaching lower peak blood alcohol concentrations, and experiencing fewer alcohol-related consequences during the summer months. All outcomes were mediated by summer housing, indicating that summer influenced alcohol use indirectly through participants' tendency to live at home. Despite small but significant decreases in alcohol consumption and related consequences when living with a parent/guardian, mandated college students continue to exhibit risky drinking and consequences during the summer months. Given these findings, summer may be an appropriate time to implement prevention and intervention strategies with mandated and other at-risk populations.

Source : P0015,  
33667

Thème : **JEUNE**

Vaca F.E., Li K., Hingson R., Simons-Morton B.G.

**Transitions in Riding With an Alcohol/Drug-Impaired Driver From Adolescence to Emerging Adulthood in the United States.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 77-85

Mots-clefs : CONDUITE/SECURITE ROUTIERE/ETATS-

UNIS/EPIDEMIOLOGIE/ETHANOL/JEUNE/ADOLESCENT/CONSOMMATION  
EXCESSIVE PONCTUELLE/SUBSTANCE PSYCHOACTIVE/MODELE/JEUNE  
ADULTE

The purpose of this study was to examine changes and predictors of changes in riding with an alcohol/drug-impaired driver (RWI) from 10th grade through the first post-high school year. Transition models were used to estimate the association of four waves (W1-W4) of RWI with W4 environmental-status variables and time-varying covariates in the NEXT Generation Health Study, a nationally representative cohort of U.S. 10th graders ( $N = 2,785$ ). Overall, 33% (weighted) of adolescents reported RWI in the past 12 months in W1, and slightly declined in W2 (24%), W3 (27%), and W4 (26%). Across time, transition models with generalized estimating equations showed that RWI was more likely among those who previously reported RWI (ORs from 3.62 to 3.66,  $p < .001$ ), substance use (ORs from 1.81 to 1.82,  $p < .001$ ), and heavy episodic drinking (ORs from 1.85 to 1.86,  $p < .001$ ). Those living on college campuses were somewhat more likely to engage in RWI (OR = 1.38,  $.05 < p < .10$ ) than those living at home. The effects of parental monitoring knowledge and peer alcohol/substance use on RWI were suppressed when individual substance use and heavy episodic drinking were taken into consideration. Substance use and heavy episodic drinking in previous waves and the history of RWI were persistent factors of RWI in a dynamic pattern. The setting in which emerging adults live during their first post-high school year could affect their engagement in RWI. The findings suggest that harm-reduction strategies should focus on the identification of early RWI coupled with reduction of substance use and heavy episodic drinking.

Source : *P0015*,  
*33670*

Thème : **JEUNE**

Simons-Morton B., Haynie D., Liu D., Chaurasia A., Li K., Hingson R.  
**The Effect of Residence, School Status, Work Status, and Social Influence on the  
Prevalence of Alcohol Use Among Emerging Adults.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 121-132

Mots-clefs :

ADOLESCENT/JEUNE/ENVIRONNEMENT/PREVALENCE/CONSOMMATION  
EXCESSIVE/ETHANOL/EPIDEMIOLOGIE/ETUDE  
LONGITUDINALE/MODELE/COMPORTEMENT/INFLUENCE  
SOCIALE/UNIVERSITE/PARENT/JEUNE ADULTE

The first year after high school is a transitional year, with increased independence from parental supervision, contact with other independent youth, and exposure to new environments, all of which may influence substance use. This article reports longitudinal predictors of change in the prevalence of alcohol use and heavy episodic drinking among adolescents and environmental correlates (i.e., residence, college attendance, and work status) with drinking the year after high school. A national sample of study participants ( $N = 2,659$ ; 55% female) in the NEXT Generation Health Study were followed annually from 10th grade (Wave 1) to the year after high school (Wave 4). Longitudinal binary outcomes, including recent (30-day) drinking and two measures of heavy episodic drinking, were examined. Transition models with generalized estimating equations estimated the effect of previous drinking behaviors, social influences, and current residential status and activity (school and/or work) on drinking prevalence. Drinking increased from 40.5% among high school seniors (Wave 3) to 53.5% in Wave 4 for 30-day use, and from 29.0% to 41.2% for

heavy episodic drinking. Significant predictors of 30-day drinking included previous drinking status (odds ratio [OR] = 5.48), peer drinking often (OR = 3.25), parental expectations (OR = 0.91), and current year living on campus (OR = 2.10). The same significant predictors with similar magnitudes were found for both measures of heavy episodic drinking. Peer use did not interact with college attendance or residence. Predictors of drinking and heavy episodic drinking during the first year after high school included being White, living on campus, previous drinking, lower parental expectations, and having peers who drink.

Source : P0015,  
33675

Thème : **JEUNE**

Bogg T., Lasecki L., Vo P.T.

**School Investment, Drinking Motives, and High-Risk, High-Reward Partying Decisions Mediate the Relationship Between Trait Self-Control and Alcohol Consumption Among College Drinkers.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 133-142

Mots-clefs : ETUDIANT/JEUNE/ADOLESCENT/GESTION DES PROBLEMES/MOTIVATION/ALCOOLISATION/CONTROLE DE SOI/STRESS/MODE DE CONSOMMATION/MODELE/HUMEUR/IMPULSIVITE/ANXIETE/COMPORTEMENT

Research has shown trait self-control, neuroticism, and coping and enhancement drinking motives to be predictors of alcohol consumption among college students. Recent research also provides evidence for the effects of role investment and role-based alcohol consumption-decision making (i.e., partying decisions). The goal of the present study was to clarify the organization and contributions of these multifarious influences on college student drinking. College students ( $N = 355$ ; 51.8% female) with a heterogeneous prevalence of alcohol dependence completed measures of trait self-control; neuroticism; coping and enhancement drinking motives; subjective college student role investment, satisfaction, and stress; role-based partying scenarios; and a typical weekly alcohol consumption interview. Internal and comparative fit indices for alternative path models were evaluated and bootstrapping procedures were used to examine indirect effects. Modeling results favored a more stratified organization, where (a) the association between trait self-control and consumption was mediated by drinking motives and partying decisions, (b) the association between neuroticism and consumption was mediated by coping motives, and (c) the association between role investment and consumption was mediated by partying decisions. The associations between motives and consumption were not mediated by partying decisions. The results provide support for disinhibitory and distress pathways to college student drinking, where impulsive and anxious students are more likely to drink excessively because of more frequent mood-affecting drinking goals, less academic involvement, and/or more frequent decisions to attend parties where negative academic consequences are likely but where perceived rewarding alcohol-related and social features are present.

Source : P0015,  
33676

Thème : **JEUNE**

Carrus G., Panno A., Deiana L., Crano W.D., Fiorentino D., Ceccanti M., Mareri A.R., Bonifazi A., Giuliani A.

**Group Membership and Adolescents' Alcohol Intake: The Role of Drinking Motives.**  
*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 143-149

Mots-clefs : MOTIVATION/ALCOOLISATION/NORME SOCIALE/ADOLESCENT/JEUNE/ITALIE/CONSOMMATION EXCESSIVE/COMPORTEMENT/SOCIOLOGIE

Group norms and drinking motives are crucial predictors of adolescents' alcohol intake. The current study examined the role of drinking motives in the association between descriptive group norms and alcohol intake. A sample of 525 Italian adolescents (56% men) was surveyed. Participants completed measures of group norms, drinking motives, and personal drinking. Hierarchical multiple regression analysis revealed that stronger group norms were positively related to increased alcohol intake. Drinking for enhancement and social motives also were related to increased alcohol intake. Mediation analysis showed that group norms were related to alcohol intake through social and enhancement drinking motives. Drinking motives provide fruitful insights into the relationship between descriptive group norms and excessive alcohol use among adolescents. Implications for future research are discussed.

Source : P0015,  
33677

Thème : **JEUNE**

Özdemir M., Koutakis N.

**Does promoting parents' negative attitudes to underage drinking reduce adolescents' drinking? The mediating process and moderators of the effects of the Örebro Prevention Programme.**

*Addiction*, 2016, Vol.111, n°2, 263-271

Mots-clefs : PROGRAMME DE PREVENTION/REDUCTION DE CONSOMMATION/ADOLESCENT/JEUNE/PARENT/COMPORTEMENT/SUIVI/IVRESSE/RELATION SOCIALE/AGE MINIMUM LEGAL/MODELE/ALCOOLISATION/PAIR/CULTURE/SEXE

The Örebro Prevention Programme (ÖPP) was found previously to be effective in reducing drunkenness among adolescents [Cohen's  $d = 0.35$ , number needed to treat (NNT) = 7.7]. The current study tested the mediating role of parents' restrictive attitudes to underage drinking in explaining the effectiveness of the ÖPP, and the potential moderating role of gender, immigration status, peers' and parents' drinking and parent-adolescent relationship quality. A quasi-experimental matched-control group study with assessments at baseline, and at 18- and 30-month follow-ups. Of the 895 target youths at ages 12-13 years, 811 youths and 651 parents at baseline, 653 youths and 524 parents at 18-month and 705 youths and 506 parents at 30-month follow-up participated in the study. Youths reported on their past month drunkenness, their parents' and peers' alcohol use and the quality of their relationship with parents. Parents reported on their attitudes to underage drinking. The mediation analyses, using latent growth curve modeling, showed that changes in parents' restrictive attitudes to underage drinking explained the impact of the ÖPP on changes in youth drunkenness, which was reduced, and onset of monthly drunkenness, which was delayed, relative to controls. Mediation effect explained 57 and 45% of the effects on drunkenness and onset of monthly drunkenness, respectively. The programme effects on both parents' attitudes and youth drunkenness were similar across gender, immigrant status, parents' and

peers' alcohol use and parent-youth relationship quality. Increasing parents' restrictive attitudes to youth drinking appears to be an effective and robust strategy for reducing heavy underage drinking regardless of the adolescents' gender, cultural origin, peers' and parents' drinking and relationship quality with parents.

Source : P0007,  
33684

## MODÈLE ANIMALE

Thème : **MODELE ANIMAL**

Franklin K.M., Hauser S.R., Lasek A.W., Bell R.L., McBride W.J.

**Involvement of Purinergic P2X4 Receptors in Alcohol Intake of High-Alcohol-Drinking (HAD) Rats.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 2022-2031

Mots-clefs : RECEPTEUR/MODELE ANIMAL/RAT/DISPONIBILITE DE L'ALCOOL/CHOIX/EXPERIENCE/REDUCTION DE CONSOMMATION/COMPORTEMENT/SACCHAROSE/CERVEAU

The P2X4 receptor (P2X4R) is thought to be involved in regulating alcohol-consuming behaviors, and ethanol (EtOH) has been reported to inhibit P2X4Rs. Ivermectin is an antiparasitic agent that acts as a positive allosteric modulator of the P2X4R. This study examined the effects of systemically and centrally administered ivermectin on alcohol drinking of replicate lines of high-alcohol-drinking (HAD-1/HAD-2) rats, and the effects of lentiviral-delivered short-hairpin RNAs (shRNAs) targeting *P2rx4* on EtOH intake of female HAD-2 rats. For the first experiment, adult male HAD-1 and HAD-2 rats were given 24-hour free-choice access to 15% EtOH versus water. Dose-response effects of ivermectin (1.5 to 7.5 mg/kg, intraperitoneally [i.p.]) on EtOH intake were determined; the effects of ivermectin were then examined for 2% w/v sucrose intake over 5 consecutive days. In the second experiment, female HAD-2 rats were trained to consume 15% EtOH under 2-hour limited access conditions, and dose-response effects of intracerebroventricular (ICV) administration of ivermectin (0.5 to 2.0 µg) were determined over 5 consecutive days. The third experiment determined the effects of microinfusion of a lentivirus expressing *P2rx4* shRNAs into the posterior ventral tegmental area (VTA) on 24-hour EtOH free-choice drinking of female HAD-2 rats. The highest i.p. dose of ivermectin reduced alcohol drinking (30 to 45%) in both rat lines, but did not alter sucrose intake. HAD-2 rats appeared to be more sensitive than HAD-1 rats to the effects of ivermectin. ICV administration of ivermectin reduced 2-hour limited access intake (~35%) of female HAD-2 rats; knockdown of *P2rx4* expression in the posterior VTA reduced 24-hour free-choice EtOH intake (~20%). Overall, the results of this study support a role for P2X4Rs within the mesolimbic system in mediating alcohol-drinking behavior.

Source : P0004,  
33616

## PATHOLOGIE

Thème : **MORTALITE**

Marmet S., Rehm J., Gmel G.

**The importance of age groups in estimates of alcohol-attributable mortality: impact on trends in Switzerland between 1997 and 2011.**

*Addiction*, 2016, Vol.111, n°2, 255-262

Mots-clefs : MORTALITE/AGE/EVOLUTION/SUISSE/ADULTE/SUIVI/MALADIE CARDIOVASCULAIRE

Monitoring trends of alcohol-attributable mortality is an integral part of the global strategy to reduce the harmful use of alcohol. However, mortality estimates based on different age ranges come to different conclusions. This study examined the impact of including different age ranges in terms of directions of trends of alcohol-attributable mortality during 14 years in Switzerland. Alcohol-attributable mortality was estimated at four time-points between 1997 and 2011 using the Global Burden of Disease 2010 methodology. Estimates were obtained for two age groups: 15-64 years and the total adult population (15 years and older). Alcohol-attributable mortality among 15-64-year-olds decreased [1997: 1334 deaths, confidence interval (CI) = 1237-1432; 2011: 1019 deaths, CI = 964-1073; trend per year odds ratio (OR) = 0.99,  $P < 0.001$ ]. In contrast, alcohol-attributable mortality among those 65 and older increased in the same time-period (1997: 581 deaths, CI = -196 to 1357; 2011: 1664 deaths, CI = 957-2372; OR = 1.07,  $P < 0.001$ ), resulting in an overall increase of alcohol-attributable mortality for 15+ year-olds (1997: 1915 deaths, CI = 1133-2697; 2011: 2683, CI = 1973-3393; OR = 1.02,  $P < 0.001$ ). The main shift in trends was due to changes in the mixture (e.g. hypertension, ischaemic heart disease) of cardiovascular diseases over time among those 65+ years old. Trends in alcohol-attributable mortality may yield qualitatively different results based on the upper age limit for deaths set for these estimates. Global trends of alcohol-attributable mortality between 1997 and 2011 were influenced heavily by changes in the mixture of deaths across cardiovascular diseases. Trends for alcohol-attributable mortality and cross-country comparisons should be reported separately for 15-64 and 65+ year-olds.

Source : P0007,  
33683

Thème : **PATHOLOGIE**

Dolganiuc A.

**Alcohol and viral hepatitis - Role of lipid rafts**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 299-309

Mots-clefs : INFECTION/HEPATITE/HEPATOPATHIE/LIPIDE/FOIE/VIRUS

Both alcohol abuse and infection with hepatitis viruses can lead to liver disease, including chronic hepatitis. Alcohol and hepatitis viruses have synergistic effects in the development of liver disease. Some of these involve the cellular membranes and particularly their functionally active domains, termed lipid rafts, which contain many proteins with essential roles in signaling and other processes. These lipid rafts play a central role in the lifecycles of hepatitis viruses. Alcohol's actions at the lipid rafts may contribute to the synergistic harmful effects of alcohol and hepatitis viruses on the liver and the pathogenesis of liver disease.

Source : P0006,  
33591

Thème : **PATHOLOGIE**

Meadows G.G., Zhang H.

**Effects of alcohol on tumor growth, metastasis, immune response, and host survival**

*Alcohol Research: Current Reviews*, 2015, Vol.37, n°2, 311-330

Mots-clefs : CANCER/TUMEUR/REPONSE IMMUNITAIRE/ETRE HUMAIN/MODELE/SYSTEME IMMUNITAIRE

Most research involving alcohol and cancer concerns the relationship between alcohol consumption and cancer risk and the mechanisms of carcinogenesis. This review relates the amount and duration of alcohol intake in humans and in animal models of cancer to tumor growth, angiogenesis, invasion, metastasis, immune response, and host survival in specific types and subtypes of cancer. Research on the influence of alcohol drinking on human cancer patients is limited. Although there is more information in animal models of cancer, many aspects still are ill defined. More research is needed to define the mechanisms that underlie the role of alcohol on cancer progression in both animals and humans. Activation of the immune system can play a positive role in keeping cancer under control, but this also can facilitate cancer progression. Additionally, a functional immune system is required for cancer patients to achieve an optimal response to conventional chemotherapy. Insight into the underlying mechanisms of these interactions could lead to effective immunotherapeutic approaches to treat alcoholics with cancer. Defining the epigenetic mechanisms that modulate cancer progression also has great potential for the development of new treatment options not only for treating alcoholics with cancer but also for treating other alcohol-induced diseases.

Source : *P0006*,  
**33592**

Thème : **PATHOLOGIE**

Strumylaite L., Sharp S.J., Kregzdyte R., Poskiene L., Bogusevicius A., Pranys D.

**The Association of Low-To-Moderate Alcohol Consumption with Breast Cancer Subtypes Defined by Hormone Receptor Status.**

*PLoS One*, 2015, Vol.10, n°12, e0144680

Mots-clefs : CONSOMMATION

MODEREE/ETHANOL/CANCER/SEIN/RISQUE/QUESTIONNAIRE/HOPITAL/OESTROGENE/MENOPAUSE/PATHOLOGIE

BACKGROUND:

Alcohol is a well-established risk factor for breast cancer, but pathways involved in alcohol-related breast carcinogenesis are not clearly defined. We examined the association between low-to-moderate alcohol intake and breast cancer subtypes by tumor hormone receptor status.

MATERIALS AND METHODS:

A hospital-based case-control study was performed in 585 cases and 1,170 controls. Information on alcohol intake and other risk factors was collected via a questionnaire. Logistic regression was used for analyses. All statistical tests were two-sided.

RESULTS:

The odds ratio of breast cancer was 1.75 (95% confidence interval [CI]: 1.21-2.53) in women who consumed  $\leq 5$  drinks/week, and 3.13 (95% CI: 1.81-5.43) in women who consumed  $> 5$  drinks/week, both compared with non-drinkers for  $\geq 10$  years, after adjustment for age and other confounders. The association of alcohol intake with estrogen receptor-positive breast cancer was stronger than with estrogen receptor-negative: the odds ratio per 1 category

increase was 2.05 (95% CI: 1.49-2.82) and 1.29 (95% CI: 0.85-1.94) (P-heterogeneity = 0.07). There was no evidence of an interaction between alcohol intake and menopausal status (P = 0.19) in overall group; however, it was significant in estrogen receptor-positive breast cancer (P = 0.04).

#### CONCLUSIONS:

Low-to-moderate alcohol intake is associated with the risk of estrogen receptor-positive breast cancer with the strongest association in postmenopausal women. Since alcohol intake is a modifiable risk factor of breast cancer, every woman should be informed and advised to control alcohol use.

Source : *TAP 007 595*,  
**33663**

#### Thème : **PATHOLOGIE**

Hahn J.A., Emenyonu N.I., Fatch R., Muyindike W.R., Kekiibina A., Carrico A.W., Woolf-King S., Shiboski S.

#### **Declining and rebounding unhealthy alcohol consumption during the first year of HIV care in rural Uganda, using phosphatidylethanol to augment self-report.**

*Addiction*, **2016**, Vol.111, n°2, 272-279

Mots-clefs : VIH/PHOSPHATIDYLETHANOL/MARQUEUR  
BIOLOGIQUE/CONSOMMATION  
DECLAREE/AFRIQUE/PATHOLOGIE/THERAPIE/ALCOOLISATION/AFRIQUE  
OCCIDENTALE

We examined whether unhealthy alcohol consumption, which negatively impacts HIV outcomes, changes after HIV care entry overall and by several factors. We also compared using phosphatidylethanol (PEth, an alcohol biomarker) to augment self-report to using self-report alone. A prospective 1-year observational cohort study with quarterly visits. Large rural HIV clinic in Mbarara, Uganda. A total of 208 adults (89 women and 119 men) entering HIV care, reporting any prior year alcohol consumption. Unhealthy drinking was PEth+ ( $\geq 50$  ng/ml) or Alcohol Use Disorders Identification Test-Consumption+ (AUDIT-C+, over 3 months, women  $\geq 3$ ; men  $\geq 4$ ). We calculated adjusted odds ratios (AOR) for unhealthy drinking per month since baseline, and interactions of month since baseline with perceived health, number of HIV symptoms, antiretroviral therapy (ART), gender and self-reported prior unhealthy alcohol use. The majority of participants (64%) were unhealthy drinkers (PEth+ or AUDIT-C+) at baseline. There was no significant trend in unhealthy drinking overall [per-month AOR: 1.01; 95% confidence interval (CI) = 0.94-1.07], while the per-month AORs were 0.91 (95% CI = 0.83-1.00) and 1.11 (95% CI = 1.01-1.22) when participants were not yet on ART and on ART, respectively (interaction P-value  $< 0.01$ ). In contrast, 44% were AUDIT-C+; the per-month AORs for being AUDIT-C+ were 0.89 (95% CI = 0.85-0.95) overall, and 0.84 (95% CI = 0.78-0.91) and 0.97 (95% CI = 0.89-1.05) when participants were not on and were on ART, respectively. Unhealthy alcohol use among Ugandan adults entering HIV care declines prior to the start of anti-retroviral therapy but rebounds with time. Augmenting self-reported alcohol use with biomarkers increases the ability of current alcohol use measurements to detect unhealthy alcohol use.

Source : *P0007*,  
**33685**

## PHYSIOLOGIE

### Thème : **METABOLISME**

Idewaki Y., Iwase M., Fuji H., Ohkuma T., Ide H., Kaizu S., Jodai T., Kikuchi Y., Hirano A., Nakamura U., Kubo M., Kitazono T.

#### **Association of Genetically Determined Aldehyde Dehydrogenase 2 Activity with Diabetic Complications in Relation to Alcohol Consumption in Japanese Patients with Type 2 Diabetes Mellitus: The Fukuoka Diabetes Registry.**

*PLoS One*, 2015, Vol.10, n°11, e0143288

Mots-clefs : ALDH/METABOLISME/ENZYME/POPULATION ASIATIQUE/GENETIQUE/DIABETE/DIABETE DE TYPE 2/JAPON/POLYMORPHISME/NUCLEOTIDE/ETUDE TRANSVERSALE/MODE DE CONSOMMATION/INFARCTUS

Aldehyde dehydrogenase 2 (ALDH2) detoxifies aldehyde produced during ethanol metabolism and oxidative stress. A genetic defect in this enzyme is common in East Asians and determines alcohol consumption behaviors. We investigated the impact of genetically determined ALDH2 activity on diabetic microvascular and macrovascular complications in relation to drinking habits in Japanese patients with type 2 diabetes mellitus. An *ALDH2* single-nucleotide polymorphism (rs671) was genotyped in 4,400 patients. Additionally, the relationship of clinical characteristics with ALDH2 activity (*ALDH2* \*1/\*1 active enzyme activity vs. \*1/\*2 or \*2/\*2 inactive enzyme activity) and drinking habits (lifetime abstainers vs. former or current drinkers) was investigated cross-sectionally (n = 691 in \*1/\*1 abstainers, n = 1,315 in abstainers with \*2, n = 1,711 in \*1/\*1 drinkers, n = 683 in drinkers with \*2). The multiple logistic regression analysis for diabetic complications was adjusted for age, sex, current smoking habits, leisure-time physical activity, depressive symptoms, diabetes duration, body mass index, hemoglobin A1c, insulin use, high-density lipoprotein cholesterol, systolic blood pressure and renin-angiotensin system inhibitors use. Albuminuria prevalence was significantly lower in the drinkers with \*2 than that of other groups (odds ratio [95% confidence interval (CI)]: \*1/\*1 abstainers as the referent, 0.94 [0.76-1.16] in abstainers with \*2, 1.00 [0.80-1.26] in \*1/\*1 drinkers, 0.71 [0.54-0.93] in drinkers with \*2). Retinal photocoagulation prevalence was also lower in drinkers with *ALDH2* \*2 than that of other groups. In contrast, myocardial infarction was significantly increased in *ALDH2* \*2 carriers compared with that in *ALDH2* \*1/\*1 abstainers (odds ratio [95% CI]: \*1/\*1 abstainers as the referent, 2.63 [1.28-6.13] in abstainers with \*2, 1.89 [0.89-4.51] in \*1/\*1 drinkers, 2.35 [1.06-5.79] in drinkers with \*2). In summary, patients with type 2 diabetes and *ALDH2* \*2 displayed a lower microvascular complication prevalence associated with alcohol consumption but a higher macrovascular complication prevalence irrespective of alcohol consumption.

Source : *TAP 007 591*,  
**33659**

### Thème : **NUTRITION**

Cooper J.A., Tokar T.

#### **A prospective study on vacation weight gain in adults.**

*Physiology and Behavior*, 2016, Vol.156, 43-47

Mots-clefs : POIDS/ADULTE/TENSION ARTERIELLE/ACTIVITE

## PHYSIQUE/QUESTIONNAIRE/ALCOOLISATION/NUTRITION

## PURPOSE:

To determine if a 1- to 3-week vacation in adults leads to weight gain and whether that gain persists 6weeks later.

## METHODS:

122 adults going on a 1- to 3-week vacation completed 3 visits. The visits were 1week prior to, 1week post, and 6week post vacation. Height, weight, blood pressure, and waist-to-hip ratio, physical activity (International Physical Activity Questionnaire - IPAQ) and stress (Perceived Stress Scale - PSS) were measured.

## RESULTS:

Body weight increased on vacation ( $0.32\pm 0.08\text{kg}$ ,  $p<0.05$ ) and this increase persisted so that total weight gain was  $0.41\pm 0.11\text{kg}$  ( $p<0.05$ ). No difference in weight gain based on BMI was found ( $0.28\pm 0.13\text{kg}$ ,  $0.39\pm 0.14\text{kg}$ , and  $0.48\pm 0.27\text{kg}$  for normal weight, overweight, and obese, respectively). PSS decreased for the study ( $17.1\pm 0.5$  to  $14.9\pm 0.6$  for pre-vacation to 6-weeks post-vacation, respectively;  $p<0.001$ ), and total physical activity tended to increase on vacation ( $3940\pm 235$  vs.  $4313\pm 344\text{METs}$ , for pre- vs. post-vacation, respectively;  $p=0.10$ ) and decreased in the post-vacation period ( $4313\pm 344$  vs.  $3715\pm 306\text{METs}$ ,  $p<0.05$ ).

## CONCLUSIONS:

Vacations resulted in significant weight gain ( $0.32\text{kg}$ ), and this weight gain persisted at the 6-week follow-up period. The weight gain appeared to be driven by increased energy intake above energy requirements. This gain could be a significant contributor to yearly weight gain in adults and therefore affect obesity prevalence.

Source : *TAP 007 589*,  
**33654**

## PRÉVENTION-SANTÉ PUBLIQUE

Thème : **POLITIQUE**

Reynaud M., Rigaud A., Benyamina A., Naassila M.

**Publicité pour l'alcool - Funeste paradoxe : la loi de santé d'aujourd'hui va créer les malades de demain**

*Alcoologie et Addictologie*, 2015, Vol.37, n°4, 283-284

Mots-clefs : PUBLICITE/SANTE PUBLIQUE/LOI DE LEDERMANN/CULTURE/CONSOMMATION/ETHANOL/IVRESSE/CONSOMMATION EXCESSIVE

PONCTUELLE/JEUNE/EPIDEMIOLOGIE/EVOLUTION/COUT/LOI EVIN/DISCRIMINATION DES BOISSONS

Les boissons alcooliques - vin, bière ou spiritueux - participent de notre délicieux patrimoine culturel et de notre art de vivre. Mais les réjouissances qu'elles procurent ont pour contrepartie des risques et des dommages individuels et collectifs importants sur les plans sanitaires et sociaux. La publication de plusieurs études récentes vient encore et de nouveau étayer l'ampleur de ce fléau national qui appelle un sursaut en matière de politique publique à l'aune de l'adoption de la loi de santé...

Source : *P0005*,  
**33570**

Thème : **PREVENTION**

Mencier P., Fernandez L., Pichat M., Lefranc D., Ploton L.

**Connaissances soignantes à propos d'usage ou de mésusage d'alcool de sujets âgés**

*Alcoologie et Addictologie*, 2015, Vol.37, n°4, 301-308

Mots-clés : PERSONNE AGÉE/PERSONNEL  
MEDICAL/QUESTIONNAIRE/CONSOMMATION  
EXCESSIVE/ETHANOL/CONNAISSANCE/FORMATION

Contexte : les particularités des troubles liés à l'usage d'alcool commencent à être considérés chez les personnes âgées. Mais les connaissances spécifiques à ce propos restent sporadiques et peu diffusées, alors que les soignants disent souvent en manquer pour aborder de telles situations cliniques.

Méthode : une enquête d'évaluation des connaissances spécifiques a été menée auprès de 698 soignants (116 médecins et 582 infirmiers) de huit établissements hospitaliers d'un bassin de santé, grâce à un questionnaire élaboré pour l'étude, en 20 items aboutissant à un score sur 20 points.

Résultats : 315 questionnaires ont pu être exploités (taux de réponse : 45 %), issus pour 81 % d'infirmiers (pour 19 % de médecins) et pour 84 % de femmes. Les niveaux de connaissances apparaissent bons (score moyen = 12,3), supérieurs chez les médecins, les hommes, les consommateurs d'alcool, et ne diffèrent pas selon l'existence d'une formation initiale ou continue en alcoologie, ni l'ancienneté professionnelle.

Discussion : la considération des connaissances autour du mésusage d'alcool de sujets âgés n'est pas envisagée comme une fin en soi. Elle constitue un moyen pour aborder les compétences, les ressentis de compétence, la confiance en soi, puis les attitudes diagnostiques et thérapeutiques de soignants hospitaliers envers ces aînés. Prenant en compte les distinctions nécessaires entre connaissances théoriques ou pratiques, formation et compétences (hétéro- ou autoévaluées), l'objectif de cette approche est de participer à la promotion de la prise en considération de sujets âgés présentant des troubles liés à l'usage d'alcool.

Source : P0005,  
33573

Thème : **PREVENTION**

Schuckit M.A., Smith T.L., Clausen P., Fromme K., Skidmore J., Shafir A., Kalmijn J.

**The Low Level of Response to Alcohol-Based Heavy Drinking Prevention Program: One-Year Follow-Up.**

*Journal of Studies on Alcohol and Drugs*, 2016, Vol.77, n°1, 25-37

Mots-clés : ETATS-  
UNIS/PREVENTION/INTERNET/EDUCATION/ETUDIANT/JEUNE/ALCOOLI  
SATION/CONSOMMATION EXCESSIVE

Heavy drinking is common on college campuses, with a marked increase from high school to freshman year. Programs addressing heavy campus drinking often personalize prevention protocols to fit a student's demography and prior drinking characteristics. Few efforts have individualized approaches to address a person's vulnerability through his or her low level of response (low LR) to alcohol. This article describes the recently completed 55-week outcome in drinking quantities and problems for the > 90% of 500 participants in a prevention program at a U.S. university (62% female, mean age = 18 years) who completed a 4-week series of 50-minute videos delivered via the Internet. We evaluated whether, for

low LRs, participation in an educational approach that focused on a low LR (the LR-based [LRB] condition) was associated with better outcomes than a state-of-the-art (SOTA) general education or with a no-intervention control condition. Using a mixed-design analysis of variance and focusing on the most closely ethnically matched high and low LR pairs, students with low LRs in the LRB condition demonstrated the greatest decreases in usual and maximum drinks over the 55 weeks, especially when compared with closely ethnically matched students with high LRs. Low LR controls showed the highest drinking values over time. This study underscores the potential importance of targeting a person's specific preexisting vulnerability toward heavy drinking when he or she enters college. The approach can be used in a relatively inexpensive protocol of video education sessions delivered via the Internet.

Source : P0015,  
33665

Thème : **SANTE PUBLIQUE**

Petticrew M., Douglas N., Knai C., Durand M.A., Eastmure E., Mays N.

**Health information on alcoholic beverage containers: has the alcohol industry's pledge in England to improve labelling been met?**

*Addiction*, 2016, Vol.111, n°1, 51-55

Mots-clefs : ROYAUME-UNI/INDUSTRIE/SANTE  
PUBLIQUE/INFORMATION/ETHANOL/MARQUE/UNITE  
STANDARD/RECOMMANDATION/GROSSESSE

In the United Kingdom, alcohol warning labels are the subject of a voluntary agreement between industry and government. In 2011, as part of the Public Health Responsibility Deal in England, the industry pledged to ensure that 80% of products would have clear, legible health warning labelling, although an analysis commissioned by Portman found that only 57.1% met best practice. We assessed what proportion of alcohol products now contain the required health warning information, and its clarity and placement. Survey of alcohol labelling data. United Kingdom. Analysis of the United Kingdom's 100 top-selling alcohol brands ( $n = 156$  individual products). We assessed the product labels in relation to the presence of five labelling elements: information on alcohol units, government consumption guidelines, pregnancy warnings, reference to the Drinkaware website and a responsibility statement. We also assessed the size, colour and placement of text, and the size and colouring of the pregnancy warning logo. The first three (required) elements were present on 77.6% of products examined. The mean font size of the Chief Medical Officer's (CMO) unit guidelines (usually on the back of the product) was 8.17-point. The mean size of pregnancy logos was 5.95 mm. The pregnancy logo was on average smaller on wine containers. The UK Public Health Responsibility Deal alcohol labelling pledge has not been fully met. Labelling information frequently falls short of best practice, with font and logos smaller than would be accepted on other products with health effects.

Source : P0007,  
33641

## **PSYCHOLOGIE**

Thème : **NEUROPSYCHOLOGIE**

Pronk T., van Deursen D.S., Beraha E.M., Larsen H., Wiers R.W.

**Validation of the Amsterdam Beverage Picture Set: A Controlled Picture Set for Cognitive Bias Measurement and Modification Paradigms.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 2047-2055

Mots-clefs :

BIAIS/COGNITION/PSYCHOLOGIE/COMPORTEMENT/AUDIT/ALCOOLISATION/CONSOMMATION

Alcohol research may benefit from controlled and validated picture sets. We have constructed the Amsterdam Beverage Picture Set (ABPS), which was designed for alcohol research in general and cognitive bias measurement and modification in particular. Here, we first formulate a position on alcohol stimulus validity that prescribes that alcohol-containing pictures, compared to nonalcohol-containing pictures, should induce a stronger urge to drink in heavy drinkers than in light drinkers. Because a perceptually simple picture might induce stronger cognitive biases but the presence of a drinking context might induce a stronger urge to drink, the ABPS contains pictures with and without drinking context. By limiting drinking contexts to simple consumption scenes instead of real-life scenes, complexity was minimized. A validation study was conducted to establish validity, to examine ABPS drinking contexts, and to explore the role of familiarity, valence, arousal, and control. Two hundred ninety-one psychology students completed the Alcohol Use Disorders Identification Test, as well as rating and recognition tasks for a subset of the ABPS pictures. The ABPS was well-recognized, familiar, and heavy drinkers reported a greater urge to drink in response to the alcohol-containing pictures only. Alcohol presented in drinking context did not elicit a stronger urge to drink but was recognized more slowly than alcohol presented without context. The ABPS was found to be valid, although pictures without context might be preferable for measuring cognitive biases than pictures with context. We discuss how an explicit approach to picture construction may aid in creating variations of the ABPS. Finally, we describe how ABPS adoption across studies may allow more reproducible and comparable results across paradigms, while allowing researchers to apply picture selection criteria that correspond to a wide range of theoretical positions. The latter is exemplified by ABPS derivatives and adoptions that are currently under way.

Source : P0004,  
33619

Thème : **PSYCHIATRIE - PSYCHOPATHOLOGIE - PSYCHANALYSE**

Tsukue R., Okamoto Y., Yoshino A., Kunisato Y., Takagaki K., Takebayashi Y., Tanaka K., Konuma K., Tsukue I., Yamawaki S.

**Do Individuals with Alcohol Dependence Show Higher Unfairness Sensitivity? The Relationship Between Impulsivity and Unfairness Sensitivity in Alcohol-Dependent Adults.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 2016-2021

Mots-clefs :

SENSIBILITE/DEPENDANCE/ETHANOL/IMPULSIVITE/EXPERIENCE/PSYCHOPATHOLOGIE/COMPORTEMENT

Alcohol-dependent patients are known to be generally more unfairness sensitive. The ultimatum game (UG) is an experimental task designed to provoke feelings of perceived unfairness. A previous study using the UG has reported more unfairness sensitivity in patients with alcohol dependence than in a nondependent control group; it has been

speculated that this increased sensitivity might be due to a difficulty in impulse control. However, the mechanism of this relationship has not been clarified. Therefore, the relationship between unfairness sensitivity in interpersonal relationships and impulsivity was investigated using UG and delay discounting (DD) paradigms. Subjects were 32 individuals with alcohol dependency and 36 healthy control individuals; both groups performed UG and DD tasks. Participants with alcohol dependence rejected monetary offers deemed unfair at a significantly higher rate than did control participants. Moreover, the proportion of accepting unfairness was negatively correlated with impulsivity in patients with alcohol dependence. Perceived unfairness is related to impulsivity in patients with alcohol dependence. These results provide insights concerning the psychopathology of alcohol dependence.

Source : *P0004*,  
**33615**

Thème : **PSYCHIATRIE - PSYCHOPATHOLOGIE - PSYCHANALYSE**

Salom C.L., Betts K.S., Williams G.M., Najman J.M., Alati R.

**Predictors of comorbid polysubstance use and mental health disorders in young adults-a latent class analysis.**

*Addiction*, **2016**, Vol.111, n°1, 156-164

Mots-clefs : SANTE MENTALE/POLYCONSOMMATION/COMORBIDITE/ETUDE DE COHORTE/ETUDE

LONGITUDINALE/AUSTRALIE/EPIDEMIOLOGIE/PSYCHIATRIE/COMPORTEMENT/TABAGISME/MERE/CONSOMMATION/CANNABIS/FACTEUR PREDICTIF/ADOLESCENT/JEUNE

The co-occurrence of mental health and substance use disorders adds complexity to already-significant health burdens. This study tests whether mental health disorders group differently across substance use disorder types and compares associations of early factors with the development of differing comorbidities. Consecutive antenatal clinic attendees were recruited to the longitudinal Mater-University of Queensland Study of Pregnancy (MUSP). Mother/offspring dyads were followed over 21 years. Mater-Misericordiae Public Hospital, Brisbane, Australia. MUSP offspring with maternal baseline information ( $n = 7223$ ), offspring behaviour data at 14 ( $n = 4815$ ) and psychiatric diagnoses at 21 ( $n = 2575$ ). The Composite International Diagnostic Interview yielded life-time diagnoses of mental health (MH) and substance use (SU) disorders for offspring, then latent class modelling predicted membership of polydisorder groups. We fitted the resulting estimates in multinomial logistic regression models, adjusting for maternal smoking, drinking and mental health, adolescent drinking, smoking and behaviour and mother-child closeness. Fit indices [Bayesian information criterion (BIC) = 12 415; Akaike information criterion (AIC) = 12 234] from LCA supported a four-class solution: low disorder (73.6%), MH/low SU disorder (10.6%), alcohol/cannabis/low MH disorder (12.2%) and poly SU/moderate MH disorder (3.5%). Adolescent drinking predicted poly SU/MH disorders [odds ratio (OR) = 3.34, 95% confidence interval (CI) = 1.42-7.84], while externalizing predicted membership of both SU disorder groups (OR<sub>alcohol/cannabis</sub> = 2.04, 95% CI = 1.11-3.75; OR<sub>polysubstance</sub> = 2.65, 95% CI = 1.1-6.08). Maternal smoking during pregnancy predicted MH (OR = 1.53, 95% CI = 1.06-2.23) and alcohol/cannabis-use disorders (OR = 1.73; 95% CI = 1.22-2.45). Low maternal warmth predicted mental health disorders only (OR = 2.21, 95% CI = 1.32-3.71). Mental health disorders are more likely in young adults with polysubstance use disorders than those with alcohol/cannabis use disorders. Predictors of comorbid mental health/polysubstance use disorders differ from those for alcohol/cannabis use disorders,

and are detectable during adolescence.

Source : *P0007*,  
**33644**

Thème : **PSYCHOLOGIE**

Zhou J., Heim D., Levy A.

**Sports Participation and Alcohol Use: Associations With Sports-Related Identities and Well-Being.**

*Journal of Studies on Alcohol and Drugs*, **2016**, Vol.77, n°1, 170-179

Mots-clefs : SPORT/CONSOMMATION EXCESSIVE/ETHANOL/BIEN-ETRE/COMPORTEMENT/QUESTIONNAIRE/MOTIVATION/PSYCHOSOCIOLOGIE/SUIVI/ETUDE TRANSVERSALE

Studies indicate that those participating in sports are a high-risk population for hazardous alcohol use. Previous research identifies psychosocial drivers underpinning this link between sports participation and risky drinking behavior; however, the evidence is restricted to cross-sectional prevalence studies. Theoretical evaluations suggest that psychologically constructed identities are a defining factor for behaviors in this context. Therefore, the present study sought to examine longitudinally the relationships among sports-related identities, well-being, and alcohol behaviors in those participating in sports. Respondents completed self-report questionnaires on their alcohol consumption, drinking motives, athlete identity (personal identity), sports group identification (social identity), and general well-being. A sample of 475 participants (male = 55.6%; mean age = 20.2 years) provided data at Time 1 for cross-sectional analysis. Longitudinal associations were conducted with 92 participants (male = 42.4%; mean age = 20.8 years) who provided follow-up data (Time 1 and 6 months later). Cross-sectional results revealed an association between social identity and alcohol consumption, which was fully mediated by positive reinforcement drinking motives. Correlation analysis found a significant positive relationship between Time 1 alcohol consumption and social identity 6 months later. Furthermore, social identity was positively associated with consumption, whereas athlete identity was negatively associated therewith. Finally, well-being was positively associated only with sports group identification over time. Our findings suggest that sport-related drinking may be an avenue for building group identification, and this identification is linked to well-being.

Source : *P0015*,  
**33679**

Thème : **SOCIOLOGIE**

Keenan K., Saburova L., Bobrova N., Elbourne D., Ashwin S., Leon D.A.

**Social Factors Influencing Russian Male Alcohol Use over the Life Course: A Qualitative Study Investigating Age Based Social Norms, Masculinity, and Workplace Context.**

*PLoS One*, **2015**, Vol.10, n°11, e0142993

Mots-clefs : RUSSIE/MOTIVATION/HOMME/ETUDE LONGITUDINALE/ENTRETIEN/MODE DE CONSOMMATION/CONSOMMATION EXCESSIVE PONCTUELLE/SOCIOLOGIE/COMPORTEMENT/INFLUENCE/AGE/NORME

## SOCIALE/TRAVAIL

The massive fluctuations occurring in Russian alcohol-related mortality since the mid-1980s cannot be seen outside of the context of great social and economic change. There is a dearth of qualitative studies about Russian male drinking and especially needed are those that address social processes and individual changes in drinking. Conducted as part of a longitudinal study on men's alcohol consumption in Izhevsk, this qualitative study uses 25 semi-structured biographical interviews with men aged 33-60 years to explore life course variation in drinking. The dominant pattern was decreasing binge and frequent drinking as men reached middle age which was precipitated by family building, reductions in drinking with work colleagues, and health concerns. A minority of men described chaotic drinking histories with periods of abstinence and heavy drinking. The results highlight the importance of the blue-collar work environment for conditioning male heavy drinking in young adulthood through a variety of social, normative and structural mechanisms. Post-Soviet changes had a structural influence on the propensity for workplace drinking but the important social function of male drinking sessions remained. Bonding with workmates through heavy drinking was seen as an unavoidable and essential part of young men's social life. With age peer pressure to drink decreased and the need to perform the role of responsible breadwinner put different behavioural demands on men. For some resisting social pressure to drink became an important site of self-determination and a mark of masculine maturity. Over the lifetime the place where masculine identity was asserted shifted from the workplace to the home, which commonly resulted in a reduction in drinking. We contribute to existing theories of Russian male drinking by showing that the performance of age-related social roles influences Russian men's drinking patterns, drinking contexts and their attitudes. Further research should be conducted investigating drinking trajectories in Russian men.

Source : *TAP 007 586*,  
**33634**

## RECHERCHE

Thème : **RECHERCHE**

Eisenhardt M., Leixner S., Spanagel R., Bilbao A.

**Quantification of alcohol drinking patterns in mice.**

*Addiction Biology*, **2015**, Vol.20, n°6, 1001-1011

Mots-clefs : MODELE

ANIMAL/SOURIS/RECHERCHE/SOURIS/HISTOIRE/METHODOLOGIE/COMPORTEMENT

The use of mice in alcohol research provides an excellent model system for a better understanding of the genetics and neurobiology of alcohol addiction. Almost 60 years ago, alcohol researchers began to test strains of mice for alcohol preference and intake. In particular, various voluntary alcohol drinking paradigms in the home cage were developed. In mouse models of voluntary oral alcohol consumption, animals have concurrent access to water and either one or several concentrated alcohol solutions in their home cages. Although these models have high face validity, many experimental conditions require a more precise monitoring of alcohol consumption in mice in order to capture the role of specific strains or genes, or any other manipulation on alcohol drinking behavior. Therefore, we have developed a fully automated, highly precise monitoring system for alcohol drinking in mice in the home cage. This system is now commercially available. We show that this drinkometer

system allows for detecting differences in drinking behavior (i) in transgenic mice, (ii) following alcohol deprivation, and (iii) following stress applications that are usually not detected by classical home-cage drinking paradigms. In conclusion, our drinkometer system allows disturbance-free and high resolution monitoring of alcohol drinking behavior. In particular, micro-drinking and circadian drinking patterns can be monitored in genetically modified and inbred strains of mice after environmental and pharmacological manipulation, and therefore this system represents an improvement in measuring behavioral features that are of relevance for the development of alcohol use disorders.

Source : P0054,  
33629

Thème : **RECHERCHE**

Hammer A.M., Morris N.L., Cannon A.R., Shults J.A., Curtis B., Casey C.A., Sueblinvong V., Persidsky Y., Nixon K., Brown L.A., Waldschmidt T., Mandrekar P., Kovacs E.J., Choudhry M.A.

**Summary of the 2014 Alcohol and Immunology Research Interest Group (AIRIG) meeting.**

*Alcohol*, 2015, Vol.49, n°8, 767-772

Mots-clefs :

IMMUNOLOGIE/RECHERCHE/COLLOQUE/INFLAMMATION/INTESTIN/FOIE/MACROPHAGE/INTOXICATION/ETHANOL/STRESS OXYDATIF/INFECTION/CERVEAU/POUMON/TISSU ADIPEUX/PATHOLOGIE

On November 21, 2014 the 19th annual Alcohol and Immunology Research Interest Group (AIRIG) meeting was held at Loyola University Chicago Health Sciences Campus in Maywood, Illinois. The meeting focused broadly on inflammatory cell signaling responses in the context of alcohol and alcohol-use disorders, and was divided into four plenary sessions focusing on the gut and liver, lung infections, general systemic effects of alcohol, and neuro-inflammation. One common theme among many talks was the differential roles of macrophages following both chronic and acute alcohol intoxication. Macrophages were shown to play significant roles in regulating inflammation, oxidative stress, and viral infection following alcohol exposure in the liver, lungs, adipose tissue, and brain. Other work examined the role of alcohol on disease progression in a variety of pathologies including psoriasis, advanced stage lung disease, and cancer.

Source : P0002,  
33646

Thème : **RECHERCHE**

Farris S.P., Pietrzykowski A.Z., Miles M.F., O'Brien M.A., Sanna P.P., Zakhari S., Mayfield R.D., Harris R.A.

**Applying the new genomics to alcohol dependence.**

*Alcohol*, 2015, Vol.49, n°8, 825-836

Mots-clefs : COLLOQUE/GENOME/GENETIQUE/PROBLEME LIE A L'ALCOOL/EXPRESSION GENIQUE/CORTEX/CONSOMMATION/ETHANOL/SYNAPSE/TRANSCRIPTIO

## N/PHENOTYPE/RECHERCHE

This review summarizes the proceedings of a symposium presented at the "Alcoholism and Stress: A Framework for Future Treatment Strategies" conference held in Volterra, Italy on May 6-9, 2014. The overall goal of the symposium titled "Applying the New Genomics to Alcohol Dependence", chaired by Dr. Adron Harris, was to highlight recent genomic discoveries and applications for profiling alcohol use disorder (AUD). Dr. Sean Farris discussed the gene expression networks related to lifetime consumption of alcohol within human prefrontal cortex. Dr. Andrzej Pietrzykowski presented the effects of alcohol on microRNAs in humans and animal models. Alcohol-induced alterations in the synaptic transcriptome were discussed by Dr. Michael Miles. Dr. Pietro Sanna examined methods to probe the gene regulatory networks that drive excessive alcohol drinking, and Dr. Samir Zakhari served as a panel discussant and summarized the proceedings. Collectively, the presentations emphasized the power of integrating multiple levels of genetics and transcriptomics with convergent biological processes and phenotypic behaviors to determine causal factors of AUD. The combined use of diverse data types demonstrates how unique approaches and applications can help categorize genetic complexities into relevant biological networks using a systems-level model of disease.

Source : *P0002*,  
*33653*

## SAF-GROSSESSE

Thème : **SAF - GROSSESSE**

Gauthier T.W.

### **Prenatal alcohol exposure and the developing immune system**

*Alcohol Research: Current Reviews*, **2015**, Vol.37, n°2, 279-285

Mots-clefs : GROSSESSE/SYSTEME IMMUNITAIRE/NOUVEAU-NE/EFFET DE L'ALCOOL

Evidence from research in humans and animals suggest that ingesting alcohol during pregnancy can disrupt the fetal immune system and result in an increased risk of infections and disease in newborns that may persist throughout life. Alcohol may have indirect effects on the immune system by increasing the risk of premature birth, which itself is a risk factor for immune-related problems. Animal studies suggest that alcohol exposure directly disrupts the developing immune system. A comprehensive knowledge of the mechanisms underlying alcohol's effects on the developing immune system only will become clear once researchers establish improved methods for identifying newborns exposed to alcohol in utero.

Source : *P0006*,  
*33589*

Thème : **SAF - GROSSESSE**

Foxworthy W.A., Medina A.E.

### **Overexpression of Serum Response Factor in Neurons Restores Ocular Dominance Plasticity in a Model of Fetal Alcohol Spectrum Disorders.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1951-1956

Mots-clefs : SAF/ASTROCYTE/INJECTION/OEIL/NEUROLOGIE/MODELE

## ANIMAL/CORTEX/GESTATION/ETHANOL

Deficits in neuronal plasticity underlie many neurobehavioral and cognitive problems presented in fetal alcohol spectrum disorder (FASD). Our laboratory has developed a ferret model showing that early alcohol exposure leads to a persistent disruption in ocular dominance plasticity (ODP). For instance, a few days of monocular deprivation results in a robust reduction of visual cortex neurons' responsiveness to stimulation of the deprived eye in normal animals, but not in ferrets with early alcohol exposure. Previously our laboratory demonstrated that overexpression of serum response factor (SRF) exclusively in astrocytes can improve neuronal plasticity in FASD. Here, we test whether neuronal overexpression of SRF can achieve similar effects. Ferrets received 3.5 g/kg alcohol intraperitoneally (25% in saline) or saline as control every other day between postnatal day 10 to 30, which is roughly equivalent to the third trimester of human gestation. Animals were given intracortical injections of a Herpes Simplex Virus-based vector to express either green fluorescent protein or a constitutively active form of SRF in infected neurons. They were then monocularly deprived by eyelid suture for 4 to 5 days after which single-unit recordings were conducted to determine whether changes in ocular dominance had occurred. Overexpression of a constitutively active form of SRF by neurons restored ODP in alcohol-treated animals. This effect was observed only in areas near the site of viral infection. Overexpression of SRF in neurons can restore plasticity in the ferret model of FASD, but only in areas near the site of infection. This contrasts with SRF overexpression in astrocytes which restored plasticity throughout the visual cortex.

Source : P0004,  
33608

Thème : **SAF - GROSSESSE**

Vakhtin A.A., Kodituwakku P.W., Garcia C.M., Tesche C.D.

**Aberrant development of post-movement beta rebound in adolescents and young adults with fetal alcohol spectrum disorders.**

*Neuroimage Clinical*, 2015, Vol.9, 392-400

Mots-clefs : SAF/EFFET DE

L'ALCOOL/CARENCE/MORPHOLOGIE/COGNITION/CERVEAU/NEUROLOGIE/AGE/ADOLESCENT/CONSEQUENCE

Dependent on maternal (e.g. genetic, age) and exposure (frequency, quantity, and timing) variables, the effects of prenatal alcohol exposure on the developing fetus are known to vary widely, producing a broad range of morphological anomalies and neurocognitive deficits in offspring, referred to as fetal alcohol spectrum disorders (FASD). Maternal drinking during pregnancy remains a leading risk factor for the development of intellectual disabilities in the US. While few functional findings exist today that shed light on the mechanisms responsible for the observed impairments in individuals with FASD, animal models consistently report deleterious effects of early alcohol exposure on GABA-ergic inhibitory pathways. The post-motor beta rebound (PMBR), a transient increase of 15-30 Hz beta power in the motor cortex that follows the termination of movement, has been implicated as a neural signature of GABA-ergic inhibitory activity. Further, PMBR has been shown to be a reliable predictor of age in adolescents. The present study sought to investigate any differences in the development of PMBR between FASD and control groups. Beta event-related desynchronization (ERD) and movement-related gamma synchronization (MRGS), although not clearly linked to brain maturation, were also examined. Twenty-two participants with FASD and 22 age and sex-matched controls (12-22 years old) underwent

magnetoencephalography scans while performing an auditory oddball task, which required a button press in response to select target stimuli. The data surrounding the button presses were localized to the participants' motor cortices, and the time courses from the locations of the maximally evoked PMBR were subjected to wavelet analyses. The subsequent analysis of PMBR, ERD, and MRGS revealed a significant interaction between group and age in their effects on PMBR. While age had a significant effect on PMBR in the controls, no simple effects of age were detected in the FASD group. The FASD group additionally displayed decreased overall ERD levels. No group or age effects on MRGS were detected. The described findings provide further evidence for broad impairments in inhibitory processes in adolescents with FASD, possibly related to aberrant development of GABA-ergic pathways.

Source : *TAP 007 587*,  
**33635**

**Thème : SAF - GROSSESSE**

Leroy-Creutz M., Fresson J., Bedel S., Miton A.

**Alcool et grossesse en Lorraine : étude des pratiques professionnelles et aide au repérage**

*Santé Publique*, 2015, Vol.27, n°6, 797-808

Mots-clés :

GROSSESSE/LORRAINE/SAF/PREVENTION/RECOMMANDATION/QUESTIONNAIRE/MEDECIN/DEPISTAGE/COMPORTEMENT A RISQUE/FEMME

L'Ensemble des Troubles Causés par l'Alcoolisation Fœtale (ETCAF), représente la première cause non génétique de handicap mental chez l'enfant. « Zéro alcool » pendant la grossesse est préconisé mais aucun outil de repérage n'est mis à disposition des professionnels de la périnatalité. Afin d'améliorer la prévention de l'ETCAF en Lorraine, le Réseau Périnatal Lorrain (RPL) a réalisé un état des lieux des pratiques des professionnels de la périnatalité et a proposé un outil d'aide au repérage.

Matériel et méthode : L'outil proposé est un auto-questionnaire associant l'AUDIT-C et le TACE. 100 professionnels tirés au sort ainsi que l'ensemble des sages-femmes de Protection Maternelle et Infantile de Meurthe-et-Moselle ont été interrogés sur leur pratique puis ont testé l'auto-questionnaire.

Résultats : Les sages-femmes (98%) se sont significativement plus mobilisées que les médecins (53%) ( $p < 0,0001$ ). 32% des professionnels interrogés rencontrent des difficultés à évoquer la question de l'alcool et 30% souhaitent une formation. La majorité des professionnels ayant testé l'outil l'ont trouvé adapté. Les femmes enceintes ont facilement répondu au questionnaire. Seules 15 femmes déclarent consommer de l'alcool enceintes alors que l'auto-questionnaire révèle que 38 nécessiteraient un suivi particulier.

Discussion : La mobilisation des professionnels et en particulier des médecins, sur cette thématique est difficile. Les professionnels souhaitent une aide pour repérer les conduites à risque. L'outil proposé facilite ce repérage mais il nécessite des améliorations.

Conclusion : Le RPL doit trouver de nouveaux moyens pour mobiliser les professionnels, organiser des formations et améliorer l'outil afin que la consommation d'alcool soit systématiquement évoquée en consultation

Source : *P0026*,  
**33638**

## SEXUALITÉ

Thème : **SEXUALITE**

Mastroleo N.R., Operario D., Barnett N.P., Colby S.M., Kahler C.W., Monti P.M.  
**Prevalence of Heavy Drinking and Risky Sexual Behaviors in Adult Emergency Department Patients.**

*Alcoholism: Clinical and Experimental Research*, **2015**, Vol.39, n°10, 1997-2002

Mots-clefs : PREVALENCE/COMPORTEMENT A RISQUE/SEXUALITE/SERVICE DES URGENCES/ETHANOL/EPIDEMIOLOGIE/PATIENT/AGE/AUDIT/DEPISTAGE/INFECTION/RISQUE

The study aim was to assess the prevalence and co-occurrence of alcohol and sexual risk behaviors among emergency department (ED) patients in community hospitals. Systematic screening of ED patients ( $N = 6,486$ ; 56.5% female) was conducted in 2 community hospitals in the northeast during times with high patient volume, generally between the hours of 10 AM to 8 PM, Monday through Saturday. Screening occurred from May 2011 through November 2013. Assessment included validated measures of alcohol use and sexual risk behavior. Overall results identified high rates of alcohol use, sexual risk behaviors, and their co-occurrence in this sample of ED patients. Specifically, ED patients in between the ages of 18 and 35 were consistently highest in hazardous alcohol use (positive on the Alcohol Use Disorders Identification Test or endorsing heavy episodic drinking [HED]), sexual risk behaviors, and the co-occurrence of alcohol and sex-risk behaviors. Findings show a high co-occurrence of hazardous drinking and unprotected sex among ED patients and highlight the role of HED as a factor associated with sexual risk behavior. Efforts to integrate universal screening for the co-occurrence of alcohol and sexual risk behavior in ED settings are warranted; brief interventions delivered to ED patients addressing the co-occurrence of alcohol and sexual risk behaviors have the potential to decrease the risk of sexually transmitted infections and HIV among a large number of patients.

Source : P0004,  
**33613**

Thème : **SEXUALITE**

Metrik J., Caswell A.J., Magill M., Monti P.M., Kahler C.W.  
**Sexual Risk Behavior and Heavy Drinking Among Weekly Marijuana Users.**

*Journal of Studies on Alcohol and Drugs*, **2016**, Vol.77, n°1, 104-112

Mots-clefs : COMPORTEMENT/SEXUALITE/COMPORTEMENT A RISQUE/VIH/CONSOMMATION EXCESSIVE/ETHANOL/MARIJUANA/PRESERVATIF/POLYCONSOMMATION

Sexual behavior that incurs increased risk for sexually transmitted infections and HIV incidence is associated with both heavy alcohol and marijuana use. Whereas detrimental effects of alcohol on increased sexual risk have been documented in event-level and laboratory studies, less is known about the combined use of alcohol and marijuana and their relative impact on sexual risk behavior. We examined the degree to which both heavy drinking and marijuana use were associated with condomless sexual intercourse with casual versus main partners in a sample of weekly marijuana smokers. Participants reported substance use and sexual activity using a 60-day Timeline Followback interview method ( $n =$

112). Results of generalized estimating equations indicated that both alcohol and marijuana use were independently associated with greater odds of having sexual intercourse but were not associated with greater odds of unprotected sex with a casual partner. Heavy drinking on a given day was associated with increased odds of having casual protected sex. Using both substances synergistically increased the likelihood of unprotected sex with a main partner. Findings suggest that behaviors posing higher sexual risk (condomless intercourse or sex with casual partners) occur on days when alcohol use exceeds moderate drinking guidelines. Interventions designed to reduce sexual risk behaviors may need to specifically target heavy drinking alone or when used with marijuana.

Source : P0015,  
33673

## TRAITEMENT-INTERVENTION

Thème : **PRISE EN CHARGE**

Mundt M.P., Zakletskaia L.I., Shoham D.A., Tuan W.J., Carayon P.

**Together Achieving More: Primary Care Team Communication and Alcohol-Related Healthcare Utilization and Costs.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 2003-2015

Mots-clefs : COMMUNICATION/PRISE EN CHARGE/COÛT/SERVICE DES URGENCES/MODELE/MEDECIN/INFIRMIERE/FACE A FACE/INTERVENTION/CONSOMMATION EXCESSIVE/ETHANOL

Identifying and engaging excessive alcohol users in primary care may be an effective way to improve patient health outcomes, reduce alcohol-related acute care events, and lower costs. Little is known about what structures of primary care team communication are associated with alcohol-related patient outcomes. Using a sociometric survey of primary care clinic communication, this study evaluated the relation between team communication networks and alcohol-related utilization of care and costs. Between May 2013 and December 2013, a total of 155 healthcare employees at 6 primary care clinics participated in a survey on team communication. Three-level hierarchical modeling evaluated the link between connectedness within the care team and the number of alcohol-related emergency department visits, hospital days, and associated medical care costs in the past 12 months for each team's primary care patient panel. Teams ( $n = 31$ ) whose registered nurses displayed more strong (at least daily) face-to-face ties and strong (at least daily) electronic communication ties had 10% fewer alcohol-related hospital days (rate ratio [RR] = 0.90; 95% confidence interval [CI]: 0.84, 0.97). Furthermore, in an average team size of 19, each additional team member with strong interaction ties across the whole team was associated with \$1,030 (95% CI: -\$1,819, -\$241) lower alcohol-related patient healthcare costs per 1,000 team patients in the past 12 months. Conversely, teams whose primary care practitioner (PCP) had more strong face-to-face communication ties and more weak (weekly or several times a week) electronic communication ties had 12% more alcohol-related hospital days (RR = 1.12; 95% CI: 1.03, 1.23) and \$1,428 (95% CI: \$378, \$2,478) higher alcohol-related healthcare costs per 1,000 patients in the past 12 months. The analyses controlled for patient age, gender, insurance, and comorbidity diagnoses. Excessive alcohol-using patients may fair better if cared for by teams whose face-to-face and electronic communication networks include more team members and whose communication to the PCP has been streamlined to fewer team members.

Source : P0004,  
33614

Thème : **TRAITEMENT - INTERVENTION**

Jander A., Crutzen R., Mercken L., De Vries H.

**Web-based interventions to decrease alcohol use in adolescents: a Delphi study about increasing effectiveness and reducing drop-out.**

*BMC Public Health*, 2015, n°15, n°340, 13 p.

Mots-clefs : INTERNET/INTERVENTION/CONSOMMATION EXCESSIVE  
PONCTUELLE/ADOLESCENT/JEUNE/REDUCTION DE  
CONSOMMATION/EFFICACITE

BACKGROUND:

Web-based computer-tailored (CT) interventions have a high potential to reach a large number of people and effectively change health risk behaviors and their determinants. However, effect studies show small and variable effect sizes, and these interventions also suffer from high drop-out. In this study we explored how Web-based CT interventions can be used effectively to reduce binge drinking in 16- to 18-year-old adolescents.

METHOD:

A three-round Delphi study was conducted. We invited experts to identify strategies to be used in Web-based CT interventions that can effectively decrease binge drinking in adolescents and to rate these strategies by importance. We asked to discriminate between interventions targeted for adolescents and those targeted for parents. Furthermore, we asked experts to suggest strategies for reducing drop-out and to indicate their importance.

RESULTS:

Important strategies mentioned by the experts were: encouraging parents to set appropriate rules, encouraging consistent communication, and training refusal skills among adolescents. Concerning the reduction of drop-out from Web-based CT interventions experts came up with suggestions involving the content of the intervention (e.g., relevant material, use of language, tailored messages) but also involving the use of reminders and incentives.

CONCLUSIONS:

The results of this explorative study provide useful strategies to increase effectiveness and decrease drop-out in future interventions.

Source : TAP 007 576,  
33595

Thème : **TRAITEMENT - INTERVENTION**

Magill M., Kiluk B.D., McCrady B.S., Tonigan J.S., Longabaugh R.

**Active Ingredients of Treatment and Client Mechanisms of Change in Behavioral Treatments for Alcohol Use Disorders: Progress 10 Years Later.**

*Alcoholism: Clinical and Experimental Research*, 2015, Vol.39, n°10, 1852-1862

Mots-clefs : RECHERCHE/TRAITEMENT/THERAPIE COGNITIVO-  
COMPORTEMENTALE/THERAPIE DE COUPLE/ENTRETIEN  
MOTIVATIONNEL/EFFICACITE/COMPORTEMENT/INTERVENTION

The current review revisits the article entitled: "Active Ingredients: How and Why Evidence-Based Alcohol Behavioral Treatment Interventions Work" published in *Alcoholism: Clinical and Experimental Research*. This work summarized proceedings from a 2004 Symposium of the

same name that was held at the Annual Meeting of the Research Society on Alcoholism (RSA). A decade has passed, which provides occasion for an evaluation of progress. In 2014, an RSA symposium titled *Active Treatment Ingredients and Client Mechanisms of Change in Behavioral Treatments for Alcohol Use Disorders: Progress 10 Years Later* did just that. The current review revisits state-of-the-art research on the 3 treatments examined 10 years ago: cognitive behavioral therapy, alcohol behavior couples therapy, and 12-step facilitation. Because of its empirically validated effectiveness and robust research agenda on the study of process outcome, motivational interviewing has been selected as the fourth treatment modality to be discussed. For each of these 4 treatments, the reviewers provide a critical assessment of current theory and research with a special emphasis on key recommendations for the future. Noteworthy progress has been made in identifying active ingredients of treatments and mechanisms of behavior change in these 4 behavioral interventions for alcohol and other drug use disorders. Not only have we established some of the mechanisms through which these evidence-based treatments work, but we have also uncovered some of the limitations in our existing frameworks and methods. Further progress in this area will require a broader view with respect to conceptual frameworks, analytic methods, and measurement instrumentation.

Source : P0004,  
33599

Thème : **TRAITEMENT - INTERVENTION**

Alaux-Cantin S., Buttolo R., Houchi H., Jeanblanc J., Naassila M.

**Memantine reduces alcohol drinking but not relapse in alcohol-dependent rats.**

*Addiction Biology*, 2015, Vol.20, n°5, 890-901

Mots-clefs : ALCOOLISME/RECHUTE/TRAITEMENT/INJECTION/MODELE ANIMAL/RAT/AUTO-ADMINISTRATION/SEVRAGE/EFFICACITE/DEPENDANCE

Alcoholism is a chronic relapsing disorder with consequences on health and that requires more effective treatments. Among alternative therapies, the therapeutic potential of the non-competitive N-methyl-D-aspartate receptor antagonist memantine has been suggested. Despite promising results, its efficiency in the treatment of alcoholism remains controversial. Currently, there is no pre-clinical data regarding its effects on the motivation for ethanol in post-dependent (PD) animals exposed to intermittent ethanol vapor, a validated model of alcoholism. Thus, the objectives of this study were to evaluate the effects of acute injections of memantine (0, 12.5, 25 and 50 mg/kg) on operant ethanol self-administration in non-dependent (ND) and PD rats tested either during acute withdrawal or relapse after protracted abstinence. Our results showed that memantine (25 mg/kg) abolished ethanol self-administration in ND rats and reduced by half the one of PD rats during acute withdrawal. While this effect was observed only 6 hours after treatment in ND rats, it was long lasting in PD rats (at least 30 hours after injection). Furthermore, our results indicated that memantine did not modify the breaking point for ethanol. This suggests that memantine probably act by potentiating the pharmacological effect of ethanol but not by reducing motivation for ethanol. Finally, memantine was also ineffective in reducing relapse after protracted abstinence. Altogether, our pre-clinical results highlighted a potential therapeutic use of memantine that may be used as a replacement therapy drug but not as relapse-preventing drug.

Source : P0054,

33625

Thème : **TRAITEMENT - INTERVENTION**

Logrip M.L.

**Phosphodiesterase regulation of alcohol drinking in rodents.***Alcohol*, 2015, Vol.49, n°8, 795-802

Mots-clefs : RECHUTE/AMP CYCLIQUE/TRAITEMENT/CONSOMMATION MODEREE/PROBLEME LIE A L'ALCOOL/MEDICAMENT/MODELE ANIMAL/RONGEUR

Alcohol use disorders are chronically relapsing conditions characterized by persistent drinking despite the negative impact on one's life. The difficulty of achieving and maintaining sobriety suggests that current treatments fail to fully address the underlying causes of alcohol use disorders. Identifying additional pathways controlling alcohol consumption may uncover novel targets for medication development to improve treatment options. One family of proteins recently implicated in the regulation of alcohol consumption is the cyclic nucleotide phosphodiesterases (PDEs). As an integral component in the regulation of the second messengers cyclic AMP and cyclic GMP, and thus their cognate signaling pathways, PDEs present intriguing targets for pharmacotherapies to combat alcohol use disorders. As activation of cAMP/cGMP-dependent signaling cascades can dampen alcohol intake, PDE inhibitors may provide a novel target for reducing excessive alcohol consumption, as has been proposed for PDE4 and PDE10A. This review highlights preclinical literature demonstrating the involvement of cyclic nucleotide-dependent signaling in neuronal and behavioral responses to alcohol, as well as detailing the capacity of various PDE inhibitors to modulate alcohol intake. Together these data provide a framework for evaluating the potential utility of PDE inhibitors as novel treatments for alcohol use disorders.

Source : P0002,  
33649