

BELGIAN BRAIN COUNCIL



IN THIS EDITION

COVID LONG (or PASC) - FOLLOW-UP

BBC and Brain Awareness WEEK

Autism Day-2 April

News from our members

COVID LONG (or PASC) – FOLLOW-UP

People who were vaccinated and had COVID-19 are, in the long term, less likely to have fatigue and other health problems than unvaccinated people

It has been examined the long-term effects of the pandemic, between July and November 2021, Edelstein and colleagues asked more than 3,000 people whether they had the most common symptoms of long COVID. All had been tested for SARS-CoV-2 between March 2020 and the study period. This study shows that for fully vaccinated subjects who had also had COVID-19, 54% had less headache, 64% less fatigue and 68% less muscle pain than their unvaccinated counterparts. Another study by a team from King's College London, made a similar finding.

COVID-LONG in children ⁴

What is known about COVID-LONG in children and adolescents suggests that it can be just as disabling as in adults. A recent study at the University College of London recruited 6,804 children from 11 to 17 year olds in the UK in the beginning of 2021. About half of them had positive PCR tests for COVID-19; the other half were negative and served as a control group.

¹ Experts have proposed a new term for this syndrome: post-acute sequelae of SARS-CoV-2 infection (PASC).

² Kuodi, P. et al. Preprint at medRxiv <https://doi.org/10.1101/2022.01.05.22268800> (2022).

³ La Antonelli, M. et al. Lancet Infect. Dis. 22, 43–55 (2022)

⁴ Nature 602, 183 (2022) doi: <https://doi.org/10.1038/d41586-022-00334-w>

Three months after being tested, both groups completed a questionnaire asking which symptoms they were experiencing. Both groups reported some symptoms, but those who tested positive were more likely to have COVID-19 symptoms than those who tested negative and were almost twice likely to report three or more symptoms. The study concludes: *"It is irresponsible for governments to allow the virus to spread in this age group, especially in countries where the majority of children are not vaccinated. Past epidemics have often resulted in long-lasting symptoms, such as post-polio syndrome, and COVID-19 is clearly no different."*

COVID and stroke ⁵

Data from the US show that even mild COVID-19 can increase the risk of cardiovascular problems for at least a year after diagnosis. The researchers found that rates of many conditions, such as heart failure and stroke, were significantly higher in people who recovered from COVID-19 than in similar people who did not have the disease. "It doesn't matter if you're young or old, it doesn't matter if you smoke or not," says study co-author Ziyad Al-Aly. "The risk is there".

BBC and Brain Awareness WEEK 2022 14–20 March



This year, 6 universities (KULeuven, UCLouvain, ULB, ULiège, UMONS, UNamur), Grande Ecole (Henallux), Scientific Society (EpiC) and a patient association (Aidants Proches), members of the BBC, are participating in the International Brain Awareness Week.

1. University programme



Interuniversity Conference – 15 March at 8pm

Description:

All memory involves a unique brain that is constantly changing under the dual stress of age and environment. Talking about memory and the brain is therefore a problem that is both biological and environmental. We share with animals the preverbal development of genetic, epigenetic and affective memory that shapes our brain. However, in the third year, we enter into the world of verbality, specifically the human world. By the age of six we are emotionally experiencing stories that provoke feelings of wonder or horror that gives meaning to our works about art and wars. When the brain gets old, the memories come back, as if they had just appeared

⁵ Xie Y, Xu E, Bowe B, Al-Aly Z. Nat Med. 2022 Feb 7. doi: 10.1038/s41591-022-01689-3.

Speaker:

Boris Cyrulnik: French doctor, neuropsychiatrist and psychoanalyst.



[Live on the Youtube channel of Sciences.be](https://www.youtube.com/channel/UCSciences.be)

UCLouvain

As part of the 2022 edition of this event, a team of six young researchers from the Institute of Neuroscience at UCLouvain is proposing to organize a scientific activity entitled "**Touch and pain, neuroscience at the heart of the matter**", in connection with the theme of the Nobel Prize in Medicine and Physiology recently awarded to David Julius and Ardem Patapoutian for the discovery of touch and pain receptors.

The activity (about 2 hours) would consist of three 30-40 minute workshops organized three times in parallel, to accommodate a total of three groups of students (5th and/or 6th secondary grade). Each workshop would be led by two researchers doing a doctoral thesis at our institute.

Workshop 1. The sense of touch and the development of a new generation of touch feedback screens.

Touch screens have invaded our daily lives, as a means of interaction with computers, mobile phones, tablets, car dashboards, cash machines, etc. They are called touch screens, however they are not the only ones. They are called touch screens, but they do not stimulate the sense of touch. So you have to look at them to use them. In this first workshop, Giulia Esposito, a UK-trained biologist, will explain how micro-deformations of the skin produced by handling an object or sliding a fingertip over a surface can activate touch receptors, and how the nervous system exploits these signals to assess the shape and texture of the objects handled. Then, Detjon Brahmaj, engineer and researcher at the University of Lille, will present the prototype of a new haptic screen capable of generating tactile experiences by modulating the coefficient of friction between the screen and the finger. This haptic screen is being developed as part of the European research project Multitouch (<https://multitouch-itn.eu>).

Workshop 2. Multisensory haptics and virtual reality. Haptic perception refers to the perceptual experience that emerges from skin stimulation when the hand actively explores the environment and comes into contact with objects. For example, sliding your fingers over the outline of an object allows you to appreciate its shape. This is a complex process. The nervous system must integrate the tactile information produced by the activation of the mechanoreceptors in the skin with proprioceptive information about the position and movements of the hand in space. On the other hand, the brain combines this information with information from other senses, such as the vision of the object being handled. In this second workshop, Iqra Shahzad, a biologist trained in New Delhi, and Rémi Gau, a psychologist, will explain how psychophysics and magnetic resonance neuroimaging are used to study the brain processes underlying multisensory haptic perception. A demonstration of possible applications in virtual reality will be given using an ultrasound haptic stimulator (<https://www.ultraleap.com>).

Workshop 3. Pain, thermoception and TRP channels. This workshop will explore what is known but also what is not known about pain receptors or nociceptors. The endings of particular receptors are equipped with ion channels called TRP channels. These channels have the ability to open when they are exposed to heat, cold, mechanical stimuli such as pitting, chemical stimuli and capsaicin, the molecule that gives chili peppers their pungent taste. The first part of this workshop, given by biologist Farah Issah, will outline the cellular and molecular study of how these channels work. The second part, presented by Arthur Courtin, physiotherapist, will explore the different techniques that study the involvement of these channels in the perception of pain in humans.

- 30 minute workshops on the perception of touch and heat, in connection with the theme of the 2021 Nobel Prize in Physiology and Medicine awarded to David Julius and Ardem Patapoutian for the discovery of temperature and touch receptors. The idea is to hold these workshops in schools. The date and time are to be determined (depending on the availability of classes)

UNamur

- Thursday 17 March 2022 (7-9pm) - Public face-to-face conference.

Artificial Intelligence in the service of neurology

Already increasingly present in medicine, Artificial Intelligence, or AI, is infiltrating the development of diagnoses. One of the most complex fields, neurosurgery, is benefiting from deep learning machines to support practitioners and improve patient care. But what is AI? Is it as "intelligent" as everyone thinks? Will it take or is it already taking the place of doctors? How can it help the medical field and neurology?

In the framework of the Brain and Artificial Intelligence Week 2022, which takes place simultaneously from 14 to 18 March, UNamur proposes a conference entitled "**Artificial Intelligence for Neurology**". This conference will be held on Thursday 17 March in auditorium S01 of the new Faculty of Sciences in the presence of a varied panel of speakers; Charles Nicaise, researcher in neurosciences at UNamur, Benoît Frenay, researcher in artificial intelligence at UNamur, Pr. Jean-François Nisole, head of the conference will be moderated by the university's researchers and moderated by a journalist, and will take the form of a round table discussion between the various speakers, each of whom will talk about his or her speciality.

The conference, moderated by the university's researchers and moderated by a journalist, will take the form of a round table discussion between the various speakers, each of whom will talk about his or her speciality. This will be followed by an exchange between the different speakers and the public on their experiences in the fields of AI and neuroscience.

ULIEGE

Café des Sciences "Cerveau" Monday 14 March 2022 - 18h30 - Online

An evening dedicated to the brain and organized for students and the general public. A presentation by Jean Schoenen on the occasion of the publication of his book "#MigraineTOO: news and fake news on an invisible disease" will precede thematic discussion tables open and animated by clinicians and teachers.

This activity is organized by the GIGA-Neurosciences of the University of Liège, the CHU of Liège and Réjouissances within the framework of the brain week.

To register and find out more: [Café des Sciences : "Cerveau" \(uliege.be\)](https://www.uliege.be/cafedes sciences/cerveau)

Conference "Sexual differentiation of the brain and behaviour"

Tuesday 15 March 2022 - 1.30 pm - Online

By Jacques Balthazart (ULiège).

There are many morphological, physiological and behavioral differences between men and women, and these differences affect the structure and the function of the brain. Although the role of biology in this respect is often disputed, it is undeniable that these differences are the result both of biological differences between the sexes and of the differential education of boys and girls. This lecture will first review the animal studies that formally demonstrate that many differences between males and females are the result of the action of testicular hormones during embryonic life. In a second stage, it is shown that these same hormones are still present and active in the human species and determine morphological sexual differences, particularly in the brain, as well as certain behavioural differences between men and women. Finally, a third part will review clinical and epidemiological studies that strongly suggest that these hormonal mechanisms also play an important role in determining one of the most marked sexual differences in our species, namely the difference affecting sexual orientation, i.e. sexual attraction to one sex or the other.

This activity is organized by the GIGA-Neurosciences of the University of Liège, the CHU of Liège and Réjouissances in the framework of the brain week.

Register and find out more: [Sexual differentiation of the brain and behaviour \(uliege.be\)](https://uliege.be)

Conference "Sport is good for... the brain!"

Thursday 17 March 2022 - 1.30 pm - Online

By Boris Jidovtseff (ULiège).

The brain is a central and regulating organ of the body that develops particularly throughout childhood. Studies show that movement from the first years of life, and then sport, plays a fundamental role in its development, particularly through the stimulation of the sensory-motor loop. It has also been shown that regular physical activity can have a beneficial effect on school learning and cognitive capacity. The practice of sport is accompanied by other beneficial effects on the individual, such as a feeling of well-being, attention, or sleep quality. Regular physical and sporting activity is also beneficial for maintaining cognitive capacity with age and reducing the risk of certain diseases such as Alzheimer's. However, certain sports involving repetitive shocks to the head can cause encephalopathy and should be carried out with equipment and regulations adapted to the level and age of the participants.

This activity is organized by the GIGA-Neurosciences of the University of Liège, the CHU of Liège and Réjouissances within the framework of the brain week LL508.

To register and find out more: "[Sport is good for... the brain!](https://uliege.be)" (uliege.be).

The human brain - dissection

Friday 18 March 2022 - 1.30 pm - Online

By Rachel Franzen (ULiège).

During this demonstration, the anatomy of the human brain will be explained through a 3D observation of this fascinating organ, the brainstem and the cerebellum. The names and functions of the different cortical regions will be discussed. Then, the cross-sections will allow students to discover the internal organization of the brain, the distribution of the grey and white substances, the essential structures of the memory, motor skills, emotions, balance, etc. The session will end with a Q&A session.

This activity is organized by the GIGA-Neurosciences of the University of Liège, the CHU of Liège and Réjouissances within the framework of the brain week

To register and find out more: [The human brain - dissection \(uliege.be\)](https://uliege.be).

UMONS

17 March at 8 pm (Van Gogh auditorium), 17 May at 8 pm (Van Gogh-auditorium),

Artificial intelligence and medical diagnosis - Pain, from the brain to the algorithms

Conference for the general public in hybrid and bilingual mode (French/Dutch): introduction to AI applications in medicine / pain and brain (UMONS) / contribution of sensors and databases (KULeuven) / AI and diagnosis of MSDs (Henallux-CeREF). Interreg project NOMADe

Leuven Brain Institute (lien : <https://www.kuleuven.be/brain-institute>):

LBI met un coup de projecteur sur les volontaires lors de la semaine de sensibilisation au cerveau de cette année. Leuven Brain Institute (LBI), fondé en 2018, réunit toutes les recherches neuroscientifiques de la KU Leuven dans le but d'améliorer la compréhension du cerveau. Au LBI, nous nous efforçons d'obtenir un cerveau sain et des soins de santé pour tous. Le LBI compte actuellement plus de 1500 chercheurs de différents départements.

Chaque année, de nombreuses personnes, aussi bien des volontaires "sains" que des personnes souffrant de troubles du cerveau, participent aux recherches cliniques ou expérimentales des membres du LBI. Cette année, nous voulons les mettre en avant et les inviter à une journée d'information avec des conférences, des démonstrations et des ateliers fascinants sur la recherche sur le cerveau et les troubles du cerveau.

Notez la semaine du 14 mars dans votre agenda, plus d'informations suivront bientôt. Pré-inscrivez-vous via ce lien.

The poster features the text 'Care FOR BRAIN CALL FOR EVENTS' in white and blue on a dark purple background. Below this, it says 'National Brain Awareness Week March 14th - 20th 2022'. On the right, four blue brain icons are paired with text: 'Understand your brain: Promoting greater understanding and knowledge about our brains and how they work', 'Keeping your brain healthy: Raising awareness of brain health and how you can protect and strengthen your brain', 'Living with a neurological condition: Calling for more investment in services for people living with brain conditions', and 'Promoting brain research: Highlighting the need to support research into the brain and brain conditions'. At the bottom, there are logos for 'LEUVEN BRAIN INSTITUTE', '#CareForBrain', '#BrainAwarenessWeek', 'BRAIN AWARENESS WEEK', and 'RESEARCH COUNCIL'.

EpiC et collaborateurs



Cette année, l'association Ensemble pour le Cerveau en association avec la haute école Hénallux, le FORS, Stroke&Go et Form@Nam, s'adresse à un large public à propos de l'accident vasculaire cérébral (AVC).

WEBINAIRE ouvert à tous, son inscription est gratuite mais indispensable (<https://services.henallux.be/fors/paramedical/formation.php?id=1121&longue=0>)

Plus d'infos : Christine Pahaut 0477 52 10 58

La création des réseaux de centres neuro-vasculaires hospitaliers (« stroke units ») est certainement la garantie d'une prise en charge efficace et compétente de ce fléau que sont les AVC, lourds de conséquences individuelles et sociales.

Il est toutefois indispensable que cette centralisation hospitalière s'accompagne d'une sensibilisation de nous tous sur le terrain, afin de permettre leur détection la plus précoce et ainsi leur prise en charge la plus rapide : « Time is Brain ».

Comme depuis plus de 10 ans, l'EpiC (Ensemble pour le Cerveau asbl) promeut la formation de « sentinelles compétentes » dans une mouvance de large multidisciplinarité synergique, visant non seulement les professionnels de la Santé mais aussi le tout public, car l'AVC peut s'inviter chez chacun.e d'entre nous et nous surprendre à tout âge.

The programme :

Presentation and coordination: Christine Pahaut

- **Introduction and overview:** Gianni Franco
- **Testimony from the field of general practice:** Sebahat Dersan
- **Early detection (EplC sheet and strategy):** Leonardo Cirelli and Bruno Scafidi
- **Testimony of "Stroke and Go" asbl:** Pascal Lecomte and his wife
- Interlude
- **(Neuro)psychological context:** Virginie Dirick
- **Contribution of the pharmacist:** Florence Lamboray
- **Reflection on post-stroke multidisciplinary coordination at home:** Florence Gut
- **Questions and answers and discussion:** Virginie Dirick and Gianni Franco
- **End of session quiz for accreditation:** Bruno Scafidi and Christine Pahaut

Contact telephone: Christine Pahaut 0032 477/521058 (voice message/sms)

Detailed programmes will also be posted on our WEB page

Autism Day – 2 April

The 15th annual World Autism Awareness Day will take place on 2 April 2022.

Autism Spectrum Disorder or ASD is a developmental disorder that poses several challenges to an individual, including social, communication and behavioural difficulties. Although various organizations around the world contribute to the diagnosis and treatment of ASD, it is important that people know about the disorder.

The BBC, APEPA and ACTE through its European Care4Brain action are participating in this day.



News from our members



The **Belgian National League** for Multiple Sclerosis is organizing a gala concert at the Palais des Beaux-Arts in Brussels on 10 March. The programme, booking form and prices are available at <https://fr.braincouncil.be/copie-de-erasmus-1>



The **Belgian Pain Society** is awarding a €5,000 prize for clinical research in 2022. The deadline for submission is 27 April and the rules are available at: <https://www.belgianpainsociety.org/activities/Call-for-application%3A-BPS-Award-2022?lang=fr>



The **Charcot Foundation** launches 2 calls for candidates:

- PhD fellowship 2022-2028
- Clinical fellowship 2022-2024

Registration via www.belgiancharcotfoundation-research.be

Le Centre des Ressources Lésions Cérébrales organise le 25 mars à Namur une journée d'études (cf www.crlc.be).



Support our actions I



BBC ACCOUNT : BE87 7512 0194 0094

In 2021, the BBC has 27 patient organizations and 24 scientific societies as full members and 21 pharmaceutical companies as partners. The full list can be read here (<https://www.braincouncil.be/about>)

The BBC is on the following social networks:



Composition of the Executive Committee for the period 2021-2022

President: **Professor Laurence RIS**

Secretary General: **Professor Roland Pochet**

Vice-Presidents: **Professor Chris Bervoets, Dr Gianni Franco, Baron Charles van der Straten-Waillet**

Treasurer: **Baron Charles van der Straten-Waillet**

Secretary: **Mrs Lia Le Roy**

Dates to remember

14 February

Journée
Mondiale de
l'Épilepsie

14-20 March

Brain Awareness
WEEK

23 March

Deadline for
Erasmus+
application

28 March

Care4Autism
BBC Erasmus+
meeting

31 March

SIP event : How can
digitalising health
services reduce the
societal impact of pain

2 April

Journée
mondiale de
sensibilisation à
l'autisme

27 April

Belgian Pain
Society Award
5.000€ submission
deadline

11 June

BPS Congress

5-9 July

ICNMD-International
Congress on
Muscular Diseases-
Brussels

