

Bordeaux Neurocampus international conference

Bordeaux / September 27-30, 2022

Molecular, Cellular and Network Mechanisms of Synaptic Plasticity

- [Camilla Bellone](#), Switzerland
- [Tom Blanpied](#), USA
- [Rosa Cossart](#), France
- [Matthew Dalva](#), USA
- [Mark Dell'Acqua](#), USA
- [Monica Di Luca](#), Italy
- [Cagla Eroglu](#), USA
- [Inbal Goshen](#), Israel
- [Seth Grant](#), UK
- [Ingo Greger](#), UK
- [Johannes W. Hell](#), USA
- [Richard Huganir](#), USA
- [Mary B. Kennedy](#), USA
- [Matthew Kennedy](#), USA
- [Sabine Levi](#), France
- [Rob Malenka](#), USA
- [Villu Maricq](#), USA
- [Christophe Mulle](#), France
- [Valentin Nägerl](#), France
- [Roger Nicoll](#), USA
- [Stéphane Oliet](#), France
- [Pierre Paoletti](#), France
- [Katherine Roche](#), USA
- [Nathalie Rouach](#), France
- [Dmitri Rusakov](#), UK
- [Carmen Sandi](#), Switzerland
- [Markus Sauer](#), Germany
- [Erin Schuman](#), Germany
- [Annalisa Scimemi](#), USA
- [Jean-Baptiste Sibarita](#), France
- [Gina Turrigiano](#), USA
- [Kirill Volynski](#), UK
- [Karen Zito](#), USA



Invited speakers



Camilla BELLONE



Tom BLANPIÉD



Rosa COSSART



Matthew DALVA



Marc DELL'ACQUA



Monica DI LUCA



Cagla EROGLU



Inbal GOSHEN



Seth GRANT



Ingo GREGER



Johannes W. HELL



Richard HUGANIR



Mary B. KENNEDY



Matthew KENNEDY



Sabine LEVI



Rob MALENKA



Villu MARICQ



Christophe MULLE



Valentin NÄGERL



Roger NICOLL



Stéphane OLIET



Pierre PAOLETTI



Katherine ROCHE



Nathalie ROUACH



Dmitri RUSAKOV



Carmen SANDI



Markus SAUER



Erin SCHUMAN



Annalisa SCIMEMI



Jean-Baptiste SIBARITA



Gina TURRIANO



Kirill VOLYNSKI



Karen ZITO

Program

Click on a name to see abstract and biosketch

Tuesday 27 September

15:00 - Registration

16:00 - Welcome addresses by Daniel Choquet, Laurent Groc and Aude Panatier

16:15 - 17:00 - KEYNOTE LECTURE - Richard Huganir, USA

Introduced by Daniel Choquet

Regulation of Neurotransmitter Receptors in the Brain in Health and Disease

Chair:

Daniel Choquet

17:00 - 17:30 - Kirill Volynski, UK

Differential regulation of kinetics and plasticity of glutamate release among presynaptic outputs of pyramidal neurons

17:30 - 18:00 - Pierre Paoletti, France

Excitatory glycine receptors: new actors in the brain

18:00 - 19:00 - Welcome drink

Wednesday 28 September

8:30 - 9:00 - Welcome coffee

9:00 - 9:30 - Tom Blanpied, USA

Synaptic nanoorganization that controls receptor activation

Chair :

Laurent Groc

9:30 - 10:00 - Matthew Dalva, USA

Seeing synapse formation and plasticity at the nanoscale

10:00 - 10:30 - Markus Sauer, Germany

Super-Resolution Expansion Microscopy

10:30 - 11:00 - Coffee break + Posters (group 1) + Sponsor booths

11:00 - 11:30 - Jean-Baptiste Sibarita, France

Deciphering protein organization and dynamics at the nanoscale using multidimensional single molecule localization microscopy.

11:30 - 12:00 - Seth Grant, UK

Synapse molecular diversity and its organisation into the synaptome architecture

12:00 - 12:30 - 2 selected talks

- **Wouter Droogers**: *Mechanisms of nanoscale reorganization during synaptic potentiation*

- **Courteney Westlake**: *Modulation of NMDA receptor synthesis and surface expression by sAPP α*

12:30 - 14:00 - Lunch break + Posters (group 1) + Sponsor booths + **Sponsor talks:**
13:00 Temsega // 13:15 Coherent // 13:30 Femtonics // 13:45 Inscopix

14:00 - 14:30 - Camilla Bellone, Switzerland
Circuit and synaptic mechanisms of approach and avoidance social behavior

Chair :
Elva Diaz

14:30 - 15:00 - Mark Dell'Acqua, USA
Regulation of postsynaptic structural plasticity by L-type Ca²⁺-channel-mediated remodeling of the dendritic spine ER

15:00 - 15:30 - Monica Di Luca, Italy
Role of NMDA dependent synapse-to-nucleus signalling in cognitive flexibility

15:30 - 16:00 - Coffee break + Posters (group 1) + Sponsor booths

16:00 - 16:45 - 3 selected talks

- **Doyeon Kim**: *Visualizing potentiated synapses in vivo with pulse-chase HaloTag labeling of AMPA receptors*

- **Elva Diaz**: *Identification of endocytic signals in the proteins of the SynDIG/PRRT family responsible for AMPAR trafficking*

- **Agata Nowacka**: *The role of AMPA receptor surface mobility in high-frequency short-term synaptic plasticity*

Chair :
Julie Kauer

16:45 - 17:15 - Sabine Levi, France
Stabilization of nascent synapses by the A2AR signaling pathway

17:15 - 17:45 - Johannes W. Hell, USA
Calcium/calmodulin - sensitive anchoring of PSD-95 and AMPARs by alpha-actinin in spines

17:45 - 18:30 - KEYNOTE LECTURE - Erin Schuman, Germany
Introduced by Laurent Groc
Local Protein Supply in Neurons

18:15-20:00 - Wine and cheese + Posters (group 1) + Sponsor booths

From 20:00 - Open evening

Thursday 29 September

8:30 - 9:00 - Welcome coffee

9:00 - 9:45 - KEYNOTE LECTURE - Rob Malenka, USA
Introduced by Aude Panatier
The role of serotonin in prosocial behaviors

Chair :
Etienne Herzog

9:45 - 10:15 - Mary B. Kennedy, USA
Deciphering the dynamics of activation of CaMKII in synaptic spines

10:15 - 10:45 - Matthew Kennedy, USA
New approaches for investigating and manipulating neuronal cell biology

10:45 - 11:15 - Coffee break + posters (group 2) + Sponsor booths

11:15 - 11:45 - Ingo Greger, UK

Mechanisms underlying activation and modulation of AMPA receptor complexes

11:45 - 12:15 - Villu Maricq, USA

Protein regulation of NMDAR-mediated signaling

12:15 - 12:45 - 2 selected talks:

- **Mathieu Letellier**: *miR-124-dependent tagging of synapses by synaptopodin enables input-specific homeostatic plasticity*

- **Julien Dupuis**: *Ketamine enhances NMDAR synaptic trapping and alleviates molecular and behavioral deficits elicited by anti-NMDAR encephalitis patient antibodies*

12:45 - 14:15 - Lunch break + posters (group 2) + Sponsor booths + 3 **Sponsor talks**:

13:30 Abbelight // 13:45 Nikon // 14:00 Zeiss

14:15 - 14:45 - Katherine Roche, USA

Synaptic dysfunction and neurodevelopmental disorders: insights from rare variants

14:45 - 15:15 - Gina Turrigiano, USA

The ups and downs of homeostatic plasticity

15:15 - 15:45 - Karen Zito, USA

Ion flux-independent NMDA receptor signaling in bidirectional synaptic plasticity and disease

15:45-16:15 - Coffee break + Posters (group 2) + Sponsor booths

16:15 - 16:45 - Rosa Cossart, France

The inhibitory GABAergic synapse in hippocampal circuits

16:45 - 17:15 - 2 selected talks:

- **Simon Chen**: *Functionally distinct NPAS4-expressing somatostatin interneuron ensembles critical for motor learning*

- **Serena Dudek**: *Mechanisms of mGluR-dependent plasticity in hippocampal area CA2*

Thursday evening : gala dinner

- 19:00 – Visit of the cellar

- From 19:45 – Gala dinner

Friday 30 September

8:30 - 9:00 - Welcome coffee

9:00 - 9:45 - KEYNOTE LECTURE - Roger Nicoll, USA

Introduced by Daniel Choquet

CaMKII and synaptic memory

9:45 - 10:15 - Nathalie Rouach, France

Astrocytes, guardians of critical period plasticity in the visual cortex

10:15 - 10:45 - Cagla Eroglu, USA

How do astrocytes sculpt synaptic Circuits?

Chair :
Jonathan Elegheert

Chair :
Harold
MacGillavery

Chair :
Aude Panatier

10:45 - 11:15 - Annalisa Scimemi, USA

Circadian cycles change the rules of synaptic plasticity

11:15-11:45 - Coffee break + Posters (group 2) + Sponsor booths

11:45 - 12:15 - Stéphane Oliet, France

Regulation of NMDA receptor activity by astrocytes

12:15 - 12:45 - Inbal Goshen, Israel

Astrocytes, and their surprising role in memory and reward

12:45 - 13:15 - Valentin Nägerl, France

Intelligent design at the nanoscale: Super-resolution imaging of brain structure and function

13:15 - 14:30 - Lunch break + posters (group 2) + Sponsor booths

14:30 - 15:00 - Christophe Mulle, France

Presynaptic plasticity in hippocampal circuits

15:00 - 15:30 - 2 selected talks:

- **Philippe Isope**: *Functional Diversity of Glutamate Release at Individual Granule Cell Terminals in the Cerebellar Cortex*

- **Antonio Rodriguez-Moreno**: *Astrocytes and adenosine control critical periods of plasticity*

15:30 - 16:00 - Dmitri Rusakov, UK

Monitoring synaptic fidelity and excitatory inter-synaptic crosstalk in the intact brain

16:00 - 16:45 - KEYNOTE LECTURE - Carmen Sandi, Switzerland

Introduced by Laurent Groc

Mitochondrial dynamics in neuronal structure and function: Behavioral implications

16:45 - 17:00 - Concluding remarks

Chair :
Aude Panatier

Chair :
Fabrizio Gardoni

Poster sessions

Group A:

- Wednesday during lunch break
- Wednesday during Wine and cheese

1. Luis Enrique Arroyo Garcia
2. Urszula Baginska
3. Elena Baz Badillo
4. Cecilia Castelli
5. Benjamin Compans
6. Yoni Couderc
7. Ashton Curtis
8. Laura d'Andrea
9. Yulia Dembitskaya
10. Adèle Drouet
11. Charles Ducrot
12. Monica Fernandez Monreal
13. Joana Ferreira
14. Angelisa Frasca
15. Fabrizio Gardoni
16. Louise Zi Ning Goh
17. Swati Gupta
18. Nathalie Higgs
19. Mary Horne
20. Paloma Hugué Rodriguez
21. Simon Lecomte
22. Cécile Lemoigne
23. Rhys Livingstone
24. Vanessa Lourenço
25. Elena Marcello
26. Joana Mendes Duarte
27. Zaha Merlaud
28. Ashley Bourke
29. Paul Donlin-Asp
30. Stefano Giandomenico
31. Marcel Jüngling
32. Erico Lins
33. Julio Perez
34. Andre Schwarz
35. Teresa Spano
36. Marc Van Oostrum

+ Industrial posters

Group B :

- Thursday during lunch break
- Friday during lunch

1. Manon Darribere, Ivana Trivunovic
2. Angela Getz
3. Etienne Herzog
4. Agata Idziak
5. Marie-Lise Jobin
6. Konstantina Liouta
7. Tanja Maritzen
8. Catherine Marneffe
9. Vanya Metodieva, Juan Varela
10. Ana Moreira de Sa
11. Sarah Mountadem
12. Fiona Murphy
13. Patricio Opazo
14. Richard Ortega
15. Nathalie Piette
16. Lara Pizzamiglio
17. Giusy Pizzirusso
18. Virginia Puente - Muñoz
19. Federica Quici
20. Vincenzo Regio
21. Miranda Robbins
22. Amparo Roig Adam
23. Biswaranjan Sahoo
24. Gerardo Sandoval
25. Tabrez J. Siddiqui
26. Ramona Stringhi
27. Olivier Thoumine
28. Ludovic Tricoire
29. Francesco Paolo Ulloa Severino
30. Silvana Valtcheva
31. Julio Viotti
32. Roos Voorn
33. Wei Wen
34. Hanna Zieger
35. Maxime Malivert, Mathieu Ducros

+ Industrial posters

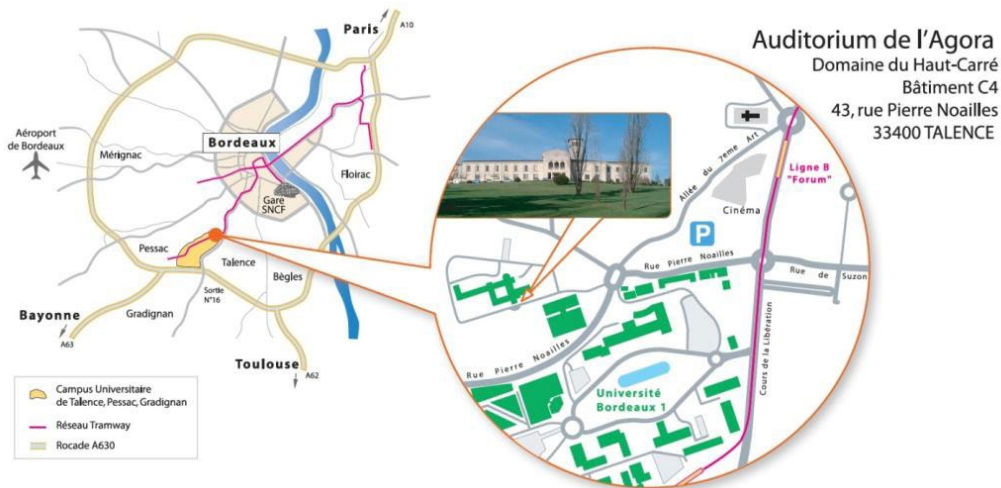
Practical information!

Venue

The conference will take place at

Espace AGORA - **Domaine du Haut Carré**
Campus de l'Université de Bordeaux
43 rue Pierre Noailles, TALENCE

Agora du Haut-Carré is an unusual setting, being housed in a former convent built in the 1950's. It is located in the southwest of the city on the Bordeaux University campus, it has a direct access to Bordeaux city center by the tramway in less than 20 minutes.

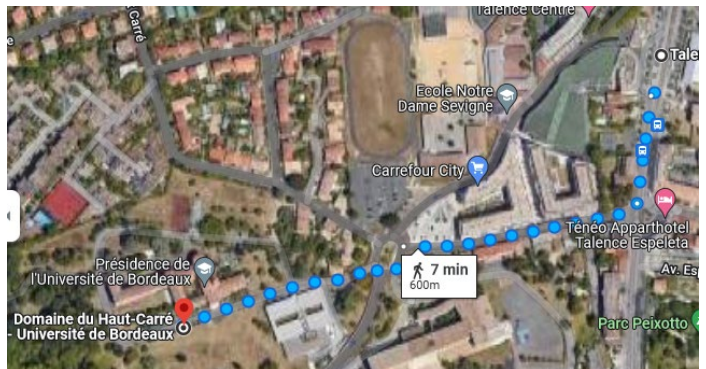


How to get there?

Take the tramway line B

From the city center of Bordeaux > Direction:
"Pessac Centre" or "Pessac Alouette"

Tram stop "Talence Centre-Forum" or « Forum ».



GPS: 44.810012 / -0.59645

Location on Google map: <https://goo.gl/maps/82hP19V8fLnBctbW7>

Transportation in the city

10 trips: 13,70 euros (7,90 for students)

7 days: 14,20 euros. With a 7 day ticket, you will have unlimited free access to the public transportation in Bordeaux (bus or tram) during all your stay.

You can:

buy a “tickarte” at each tram stop.

or use the app **“Witick”** on your phone:

<https://witick.io/en>



To use your “tickarte”, just validate each time you get into the tram or bus.

Conference venue:

The Haut-Carré is on the **line B** of the tramway.

Direction : “Pessac centre” or “Pessac alouette”

Tram stop : “Forum” or “Talence Centre – Forum”.

Registration

We will be waiting for you at the Haut-Carré on Tuesday 27th from 3pm.

Luggage

“VIGIPIRATE” safety instructions strongly recommend to the participants to avoid to come with their luggage.

Exceptionally, the bags can be left at the front desk **after being screened by a security officer**.

Wifi

Access through **Eduroam** will be possible.

A wifi will be available at the Haut-Carré

Wifi : Ubx-invites

login : NEUROCAMBUS

Password : k8F%7c

Coffee and lunch

A welcome coffee will be served between 8:30 and 9:00 every morning from Wednesday to Friday.

Coffee, tea and refreshments will be available during morning and afternoon breaks.

Lunches will be taken at the conference venue.

Social events for everyone

Welcome drink on Tuesday at 6pm

Wine and cheese on Wednesday from 6:15pm

Presentations

You are a speaker?

A laptop (PC) will be available for your presentation, with PDF and PPT softwares.

For safety, you can send us your presentation by email (brainconf@u-bordeaux.fr)

You can come with your own laptop. HDMI and VGA connections will be available.

Several type of connection devices will be available.

Posters

Two groups will be organized. Please check (or list below):

<https://autumn-brainconf.u-bordeaux.fr/en/Program/Posters/r1626.html>

The list of posters will be in the welcome tote bag.

Main poster sessions:

Group A:

- Wednesday during lunch break
- Wednesday during Wine and cheese

Group B:

- Thursday during lunch break
- Friday during lunch

You will present a poster?

Please note that maximum size is: 1m long x 1.60 high (vertical)

With the support of



Gala dinner

Thursday, September 29th
From 7:00PM

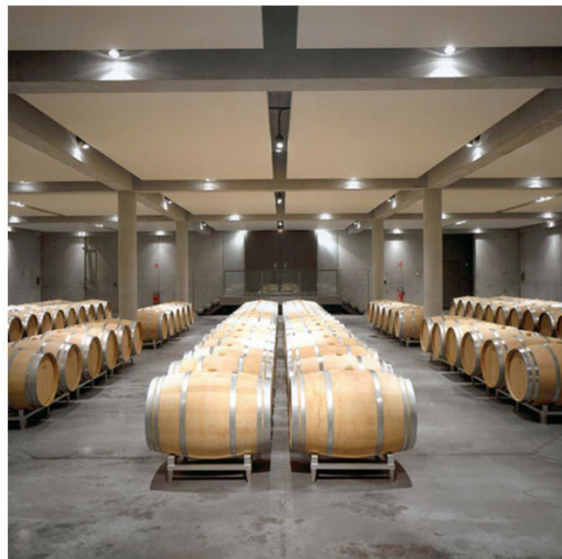
Only for participants registered to the gala dinner

Château Luchey-Halde is located in the heart of Bordeaux, in the prestigious Pessac-Léognan appellation, and benefits from an exceptional terroir.

It is constituted of several ridges which contain gravel, pebbles and fine soil deposited by the Garonne River and its tributaries between the end of the Tertiary and the beginning of the Quaternary periods. It is a poor but well-drained soil perfectly adapted to winegrowing in the oceanic climate of Bordeaux.

The gala dinner includes a visit of the cellar.

www.luchey-halde.com



How to get there?

- **By tram** : line A – Stop: “Fontaine d’Arlac” stop (10 min by walking)

- **By taxi** : adresse is “17 avenue du Maréchal Joffre – Mérignac»

Phone numbers :

Chateau: +33 (0)5 56 45 97 19

Neurocampus team:

Julia: +33 (0)6 38 67 13 39

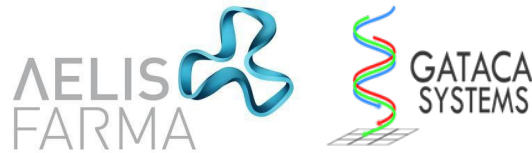
Arnaud / Marine: +33 (0)6 03 81 61 36



No dress code
More details will be given during the conference

Sponsors and booths

Gold sponsors



Meet them during the meeting



Listen to them !

Wednesday : 13:00 Temsega // 13 :15 Coherent // 13:30 Femtonics // 13:45 Inscopix

Thursday: 13:30 Abbelight // 13:45 Nikon // 14:00 Zeiss

Other sponsors



Institutional partners



Contacts

Scientific Committee

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Laurent Groc ; IINS
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Aude Panatier ; Neurocentre Magendie
aude.panatier@inserm.fr

Any question before the event?

You can send an email to brainconf@u-bordeaux.fr
Or call us: +33 (0)5 33 51 47 92

You are a speaker?

- **Accommodation, transportation:**
Marine Boussicault – gestion.neurocampus@u-bordeaux.fr
- **Communication, abstracts:**
Arnaud Rodriguez - arnaud.rodriguez@u-bordeaux.fr

Staff

Marine Boussicault
Julia Goncalves
Marie-Noëlle Gouineau
Arnaud Rodriguez

During the event, you can call us at:
+33 (0)6 03 81 61 36