



PANACHE NEWSLETTER

ISSUE
#4



editorial

Dear Reader,

Welcome to the fourth issue of the PANACHE newsletter!

Although it has been a very difficult year for the scientific community, the PANACHE consortium is unstoppable and the team has continued working on the production and testing of different connexin and pannexin (hemi)channel inhibitors to treat liver, cardiovascular and inflammatory joint disease.

In the present issue, we would like to introduce the CellCOM Research Group, which is in charge of testing the connexin and pannexin (hemi)channel inhibitors in inflammatory joint diseases. Also, this issue will cover the latest online events and summarize the first face-to-face conference after the pandemic.

Hope you enjoy this new issue of the newsletter!

Meantime, stay tuned and follow us by visiting our webpage, Twitter, Instagram, Facebook and LinkedIn.

The PANACHE consortium.

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PARTNER in the spotlight

The CellCOM Research Group

The CellCOM Research Group is based at the Biomedical Research Centre (INIBIC) in A Coruña (Spain).

The team aims to understand the physiopathology of connexin-linked diseases, to design molecules, new drugs and to identify novel markers of disease prevention, diagnosis and disease management. Particularly, the team is focussed on understanding the role of connexins and pannexins in osteoarthritis, skin wound healing, resistance

to cancer therapy and brain metastasis. Their final goal is to identify effective therapeutic targets to combat these disorders.

The CellCOM group has many publications in international peer-reviewed journals and they have registered 5 patents in the last years. They lead several projects funded by ISCIII, GAIN-Xunta de Galicia and other different public and private funding agencies.



María D. Mayán is a research group leader at INIBIC heading the CellCOM group since 2014. She earned her bachelor's degree in Pharmacy from University of Santiago de Compostela-Spain in 2000 and her doctoral degree from Complutense University of Madrid- Spain in 2006 (CIB, CSIC). She carried out 2 postdoctoral stays at the Imperial College of London and at the MRC London Institute of Medical Sciences (LMS). Dr. Mayán is currently leading the PANACHE work package 3 (WP3) on inflammatory joint diseases. Besides, she has obtained funding from several national and international agencies and she is also collaborating with different national companies.

Dr. María D. Mayán Santos. Group Leader. (Spain)



Paula Carpintero-Fernández. Ph.D.

Postdoctoral researcher at CellCOM. She leads the *in vitro* and *in vivo* testing of connexin and pannexin (hemi)channel inhibitors in PANACHE.



Alejandro García-Yuste. B. Sci

Predocctoral researcher at CellCOM. He develops connexin and pannexin (hemi)channel inhibitors in PANACHE.



Tania Montes-Morado. B. Sci

Lab manager at CellCOM. She assists in the *in vitro* and *in vivo* testing of connexin and pannexin (hemi)channel inhibitors in PANACHE.



Marta Varela-Eirín, Ph.D.

Postdoctoral researcher at CellCOM. She assists in the *in vitro* and *in vivo* testing of connexin and pannexin (hemi)channel inhibitors in PANACHE.



Adrian Varela-Vázquez, Ph.D.

Postdoctoral researcher at CellCOM. He assists in the *in vitro* and *in vivo* testing of connexin and pannexin (hemi)channel inhibitors in PANACHE.



Amanda Guitián. B. Sci.

Predocctoral researcher at CellCOM. She assists in the *in vitro* and *in vivo* testing of connexin and pannexin (hemi)channel inhibitors in PANACHE.



Marina Rodriguez. B. Sci.

Predocctoral researcher at CellCOM. She assists in the *in vitro* and *in vivo* testing of connexin and pannexin (hemi)channel inhibitors in PANACHE.

To learn more about the group and its members please visit www.mayan-lab.com

ROLE in PANACHE

The CellCOM Research Group is leading the inflammatory joint diseases therapeutic testing work package.

The group is responsible for testing the efficacy and selectivity of the connexin and pannexin (hemi)channel inhibitors in inflammatory joint diseases such as osteoarthritis in *in vitro* systems.

Furthermore, the group will test the connexin and pannexin (hemi)channel inhibitors in different *in vivo* models of acute and chronic inflammatory joint diseases and cancer to target connexins and pannexins in the inflammatory tumour microenvironment, either alone or in combination with other drugs.

LATEST event

Gap Junction Webinar Series

The gap junctions community had the possibility to keep in touch and together thanks to the Gap Junction Webinar Series. This online Webinars were organized every two weeks by the IGJC comitee.

One of the PANACHE partners, Dr. Mayán chaired one of the latest webinars with Prof. Steve L. Reichow as keynote speaker followed by two promising young researchers Amanda Guitián and Dr. Kevin J Pridham.



For more information about the webinar please visit: igjconference.org

Science Xpression Conference

After one year of online meetings, face-to-face conferences are finally back! Science Xpression 2021 took place on 30 September in A Coruña.

Two members of the PANACHE consortium, Dr. Brenda Kwak and Dr. María Mayán, presented their latest results. It was really nice to have everybody back in A Coruña. We are really looking forward to the next Gap Junction International Conference in July 2022!



More information: scienceexpression.com

UPCOMING event

Second PANACHE Workshop

When: 22 November 2021

Where: Online event

Organizer: Brenda Kwak. UNIGE. Switzerland

This one-day international event will take place online. It is divided in three sessions. The morning session will focus on points that need particular attention when designing biomedical studies. This is followed by sessions in which

experts from the connexins and pannexins research field will present their latest results. Young researchers are invited to participate and are encouraged to send their abstract for a flash presentation.

Please, [click here to register](#)



STAY tuned



For all of you who want to know more about connexin and pannexin (hemi)channels, this is your section! You will find a selection of relevant recent publications, including those published by the PANACHE consortium.

CONSORTIUM publications



Tabernilla A. *et al.* (IVTD)

In Vitro Liver Toxicity Testing of Chemicals: A Pragmatic Approach.

[Click here to read more](#)



Ehrlich A. *et al.* (UNIGE)

Lymphatic Connexins and Pannexins in Health and Disease.

[Click here to read more](#)

RELEVANT publications selected from PubMed



Yu-Hsin Chiu. *et al.*

Deacetylation as a receptor-regulated direct activation switch for pannexin channels

[Click here to read more](#)

Structure

Ali K. Khan *et al.*

Cryo-EM structure of an open conformation of a gap junction hemichannel in lipid bilayer nanodiscs

[Click here to read more](#)



Qiqian Wang *et al.*

Analysis of Hemichannels and Gap Junctions: Application and Extension of the Passive Transmembrane Ion Transport Model

[Click here to read more](#)



Adishesh K Narahari *et al.*

ATP and large signaling metabolites flux through caspase-activated Pannexin 1 channels

[Click here to read more](#)

Cell Metabolism

AmirTirosh *et al.*

Intercellular Transmission of Hepatic ER Stress in Obesity Disrupts Systemic Metabolism

[Click here to read more](#)



KEEPING UP WITH PANACHE!

Stay tuned to our latest news, results and activities



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