



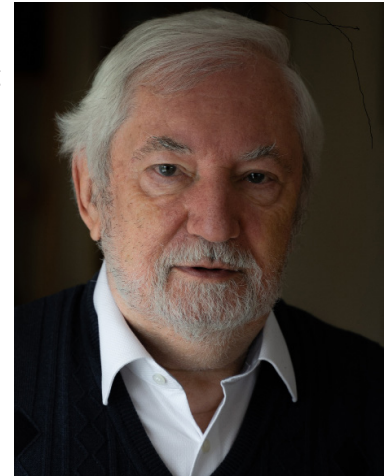
# INTERNATIONAL TRANSMEMBRANE TRANSPORTER SOCIETY

## Newsletter

### A Word from the President

Dear Colleagues,

It is my great honour and pleasure to welcome you as the president of ITTS for 2021-2022. However, due to the still raging COVID-19 pandemic, society life in terms of meetings and discussions has become almost completely frozen. We sadly realized that our Second ITTS Conference, originally scheduled for 2020 in Copenhagen, had to be postponed for 2022, and we can only hope that by that time all travel and meeting restrictions will be lifted.



The ITTS executive committee and council meeting was scheduled to coincide with the Experimental Biology (EB) Meeting in April, 2021. Since the EB congress finally took place in a virtual, online form, the ITTS executive committee decided not to arrange a council meeting connected to this congress. We expect that in person meetings may become possible from the fall of 2021, therefore we suggest having our next ITTS council meeting in 2022. The second ITTS Symposium in Copenhagen, Denmark, with the title "Catching Transport in Motion", scheduled for June 7-10, 2022 (at the Maersk Tower, the University of Copenhagen), should provide an excellent opportunity for this council meeting as well.

True, that laboratory research possibilities, society life, travel and meetings were strongly reduced by the COVID pandemic. However, biological science also showed its best features during this period. It is absolutely based on leading research activity that safe and effective vaccines against this new virus could be generated within months. The mRNA- and virus vector-based technologies opened new avenues not only in the fight against

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infective agents but may become efficient in many new medical treatments. The open access publication of practically all COVID-related papers and the rapid, uninhibited exchange of reagents and materials allowed a close collaboration of scientists all over the world, reinforcing the collaborative aspects of medical research. While we generally observe the damaging effects to our research activity, it remains to be seen how these potentially beneficial effects of the pandemic will survive and promote a better public appreciation of scientific results.

With these notes I hope that our relatively new and vibrant society will survive the effects of the pandemic, and I certainly urge you to keep your ITTS membership active. I especially thank our secretary, Sonja Sucic, and our treasurer, Haley Melikian for their help in my new role as president and hope to successfully work together with all the members of our Society. In the light of this wish, I forward the idea to make a collection at our website of research papers which are authored by ITTS members and deal with the role of membrane transporters in COVID biology, diagnostics or treatment. Therefore, I ask you to send the citation and accessibility of such [papers](#)\* to our secretary Sonja Sucic to initiate this collection.

I look forward to contributing to the ITTS activities and to seeing many of you in person as soon as the pandemic permits. Please stay safe and healthy.

Balázs Sarkadi

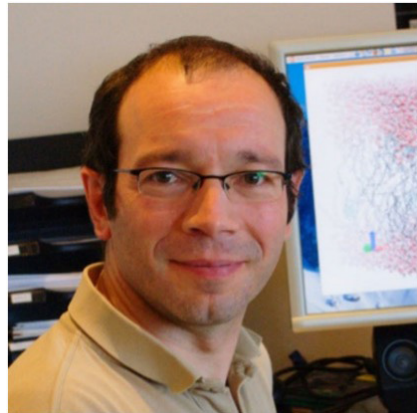
ITTS President

\*Our recent paper published in this area

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This newsletter was assembled by ITTS Secretary Sonja Sucic and Associate Councilor Lee Gilman.

## Meet Our New Vice President



ASSOC. PROFESSOR THOMAS STOCKNER - VICE PRESIDENT  
(2021-2024) MEDICAL UNIVERSITY OF VIENNA, AUSTRIA

***How would you recap your career path in a paragraph or two: any highlights you'd like to share with the ITTS bunch?***

At first, my career path may seem more like one of those winding roads you'd find in the Swiss Alps, rather than a straight highway. I studied Chemistry in Graz, Austria, where I investigated protein structures using NMR during my Master's and PhD. Afterwards, as a Postdoc, I moved to Calgary, Canada, where I used molecular dynamics simulations to study proteins and membranes. After an intermezzo of 5 years at the Austrian Institute of Technology, which is a translations center aiming to develop and establish prototypes for industry, I joined the Medical University of Vienna. Over the last 10 years, I've focused my research on membrane transporters from the ABC and SLC families by combining theoretical and experimental approaches.

Through a different lens (or viewpoint), my career path does look more like a straight highway. Since studying chemistry, I've focused on small molecules, proteins and their interactions. At each step of my career, I've continued to integrate new methods and techniques, both experimentally and computationally, with the goal of uncovering the basic principles of

protein functions at the molecular level and the effects of small molecules.

***What would you say were the biggest challenges you've faced in your career?***

Clearly, the biggest challenge was my return to academia after 5 years spent in an industry-oriented setting. This shows that, although you need to make a choice after your PhD, these transitions between academia and industry still remain possible. The longer the gap though, the more difficult the transition, because some of the funding opportunities are linked to age (so I've missed out on quite a few of them). But, on the bright side, you can build on these additional and quite unique experiences.

***What would you like to convey to young researchers in the field?***

Do I have 100 pages? I guess not...

Making choices at the early career level might seem tough (or frightening), and the outcome will only become clear once it is over (or too late). This should not scare you! In many cases, the choices made are between great and super-great. How to get there? You need two key ingredients: create a strong track-record for yourself, because this is one of the most important door openers. Second, and this one may be more difficult: discover for yourself what you'd really like to do. There is actually a third spice: opportunity. Good opportunities might be rare and they might not seem perfect right up front. Important is, to choose what feels right, asking yourself, whether you would look forward to working on that particular project.

***And...one last question to wrap it all up: any particularly adrenaline-packed events that you've experienced as a scientist (not necessarily paper-related ;-))?***

No single event beats them all, but there have been quite a few over the years, such as the first talk, the first intercontinental move, or the first teaching. For instance, a recent highlight worth mentioning here was obtaining funding by the

Marie Skłodowska Curie Actions for a European Training Network (ETN). Our network ([www.neurotrans.org](http://www.neurotrans.org)) is now established, despite the numerous challenges posed by the COVID-19 pandemic. And, it is absolutely awesome seeing the first results by PhD students in the NeuroTrans network member labs distributed over 8 European countries.

## Call for Councilors

***We are seeking nominations***

***for three new Councilors***

***to serve on the***

***ITTS Executive Committee***

***for the upcoming term of 2022-2025.***

The new councilors will replace Susan P. C. Cole, Lucia Carvelli, and Robert Vandenberg, who all end their double terms (2014-2021) at the end of this year.

**We hence thank Susan, Lucia, and Rob for their excellent input and support of our society over the last eight years! We look forward to interacting with you at the upcoming transporter meetings.**

The new councilors shall each be elected for a term of four years, with the possibility of one re-election to that position. Their duties consist of serving on the Executive Committee, and assisting the President and Vice-Presidents in the organization of the dinner meetings of the Society and in such other activities as are necessary for the operation of the Society.

Nominations will close October 30, 2021. Please email your nomination(s), along with curriculum vitae of the nominee(s) to [ittsociety@ittsociety.org](mailto:ittsociety@ittsociety.org).

Self-nominations are welcome.

## ITTS 2022 Update



### 7-10 June in Copenhagen

Dear all planned participants of ITTS 2021,

Due to the ever changing COVID-19 situation we found ourselves forced to once again make the disappointing decision to postpone the ITTS 2021 in Copenhagen to 2022. We are happy to inform you the new dates of **June 7-10, 2022**. The same venue: The Maersk Tower, University of Copenhagen.

We do recognize the work and engagement you already have put into the meeting and we working to keep the program as is as much as possible.

Again, we are sorry for this change and thank you so much for your help and contribution in this turbulent time. If you have any questions, please do not hesitate to contact us at any time.

All the best and a wish for you to stay healthy,

The Organizing Committee,

Stine F. Pedersen  
Petrine Wellendorph  
Ulrik Gether  
Claus J. Løland



2<sup>nd</sup> International Transmembrane Transporter Society Meeting

**CATCHING TRANSPORT IN MOTION**

## Call for Papers - Special Issue



*cells*

an Open Access Journal by MDPI

IMPACT  
FACTOR  
4.366

### Neurotransmitter Transporters in Health and Disease

**Guest Editors**

Dr. Sonja Sucic, Dr. Lynette C. Daws

**Co-Guest Editors**

Dr. Ameya Sanjay Kasture, Dr. Shreyas Bhat

**Deadline**

31 January 2022



**Special Issue**

[mdpi.com/si/76790](https://mdpi.com/si/76790)

Invitation to submit

# Virtual Dopamine Conference 2021



**VIRTUAL DOPAMINE CONFERENCE 2021**

**JUNE 22-24 2021**

*Featuring Talks From:*

<b>Okihide Hikosaka</b> <b>Ann Graybiel</b>	<b>Roshan Cools</b> <b>Marisela Morales</b>	<b>Bernardo Sabatini</b> <b>Roy Wise</b>
<b>Yevgenia Kozorovitskiy</b> <b>Ehud Isacoff</b> <b>Aryn Gittis</b> <b>Stephan Lammel</b> <b>Matthew Botvinick</b>	<b>Melissa Warden</b> <b>Mary Kay Lobo</b> <b>David Lovinger</b> <b>Garret Stuber</b> <b>Anne Collins</b> <b>Bryan Roth</b>	<b>Nicolas Tritsch</b> <b>Stephanie Borgland</b> <b>Anissa Abi-Dargham</b> <b>Jochen Roeper</b> <b>Mark Walton</b>

**REGISTRATION NOW OPEN**      **VIDACONFERENCE.COM**

Registration is 5 USD. Links to [registration](#) and [program](#).

## Gordon Research Seminar & Conference 2022



A Gordon Research [Seminar](#) on *Membrane Transport Proteins* (11-12 June 2022) will be followed by a Gordon Research [Conference](#) on *Biomedical Transporters: Physiology, Dysfunction, and Targets of Pharmacotherapy* (12-17 June 2022). Both events will be held at the [Rey Don Jaime Grand Hotel](#) in Spain.

## Open Positions & Job Announcements



The *Jobs Corner* on our *News* page of the ITTS website serves as a convenient platform for group leaders to announce open positions in their labs and institutions, for researchers at various stages of their career (PhD, Postdoc and beyond). Should you like to post a job opening, please send an email to Dr. Sonja Susic ([sonja.susic@meduniwien.ac.at](mailto:sonja.susic@meduniwien.ac.at)). <http://www.ittsociety.org/new-page>

## Brain in Flux 2022

The satellite meeting of the International Society for Neurochemistry (ISN), titled "The Brain in Flux: Genetic, Physiologic, and Therapeutic Perspectives on Transporters in the Nervous System" has been moved from 2021 to 2022 due to the ongoing pandemic. This fifth biennial gathering of scientists who study various aspects of brain transporters, ranging from structural studies to the roles of transport in physiology and pathophysiology, is being organized by Drs. Parry Hashemi, Hidenori Aizawa, and Michael Robinson with the support of an organizing committee composed of internationally recognized leaders in the field.

The meeting will be held in the vicinity of Kyoto, Japan. It will be 3.5 days long starting on August 25, 2022 with departures on the morning August 29, 2022 with an easy transfer to the main ISN meeting in Kyoto.

As has been a tradition of this transporter meeting, there is essentially no overlap of invited speakers with those who presented at earlier meetings, at least half of the presenters will be chosen from submitted abstracts, and there will be an emphasis on opportunities for trainees and early-stage faculty to present their work. The organizers are committed to encouraging diversity of the science as well as presenters/attendees. The venue will be chosen to encourage interactions. As additional information becomes available, it will be posted at the ITTS website with links to additional information and registration information.



## Updates from Ryan Lab

Chen I, Pant S, Wu Q, Cater RJ, Sobti M, Vandenberg RJ, Stewart AG, Tajkhorshid E, Font J, Ryan RM. [Glutamate transporters have a chloride channel with two hydrophobic gates.](#) *Nature* (2021) 591(7849):327-331

[News feature](#) on above Ryan Lab publication.

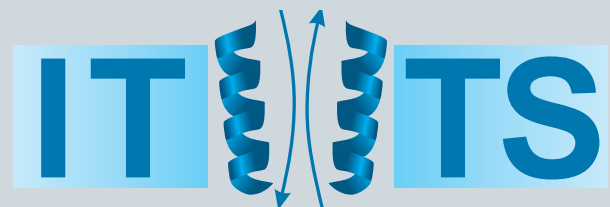
## Update from Di Fulvio Lab

Di Fulvio M, Bogdani M, Velasco M, McMillen TS, Ridaura C, Kelly L, Almutairi MM, Kursan S, Sajib AA, Hiriart M, Aguilar-Bryan L. [Heterogeneous expression of CFTR in insulin-secreting  \$\beta\$ -cells of the normal human islet.](#) *PLoS ONE* (2020) 15(12): e0242749

Rathod YD, Di Fulvio M. [The feeding microstructure of male and female mice.](#) *PLoS ONE* (2021) 16(2): e0246569

## Update from Bazzone Lab

Bazzone A, Barthmes M. [Functional characterization of SLC transporters using solid supported membranes.](#) *Methods Mol Biol* (2020) 2168:73-103



International Transmembrane  
Transporter Society

Not Sure of Your  
Membership Status?

Go to our secure website to check  
whether your membership is current:  
<http://www.ittsociety.org/member-login>

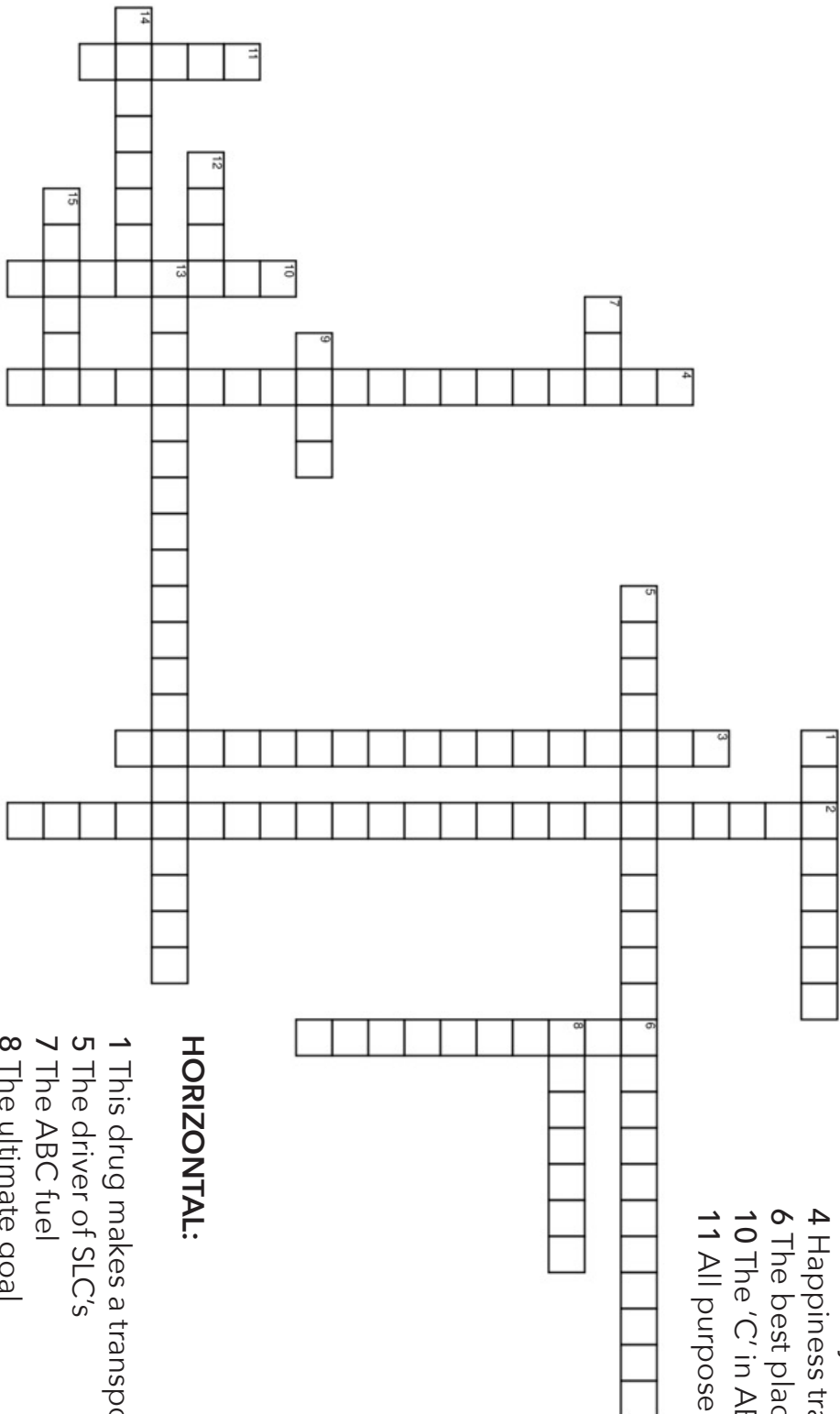
# Transporter Fun Corner

**VERTICAL:**

- 2 What every ABC transporter has
- 3 Jardetzky
- 4 Happiness transporter
- 6 The best place to be in June 2022
- 10 The 'C' in ABCG2
- 11 All purpose transporter

**HORIZONTAL:**

- 1 This drug makes a transporter outward-facing
- 5 The driver of SLC's
- 7 The ABC fuel
- 8 The ultimate goal
- 9 PBD ID of the first SLC6-like transporter
- 12 The best scientific society
- 13 Love transporter
- 14 This drug makes a transporter inward-facing
- 15 The most basic experiment



Answers can be found on the next page

## Student and Post-Doctoral ITTS Chapters Welcome

ITTS welcomes applications for local Chapters of ITTS, comprised of students and post-doctoral fellows. To form a Chapter, have your mentor nominate you as leader of that Chapter, and provide assurance of your rank, good academic standing, and commitment to the ITTS. Please also provide a name for your Chapter. Annual dues for Chapter members is only \$10, and paid by your mentor (with their blessing, of course). Chapter members will receive a member card, and have this as a valuable addition to their curriculum vitae. ITTS Chapters will be evaluated annually for their contributions to the society. The role of Chapters is to encourage active involvement with the ITTS through local outreach events, and attracting new members. Inactive Chapters, as deemed by the ITTS Executive Committee and Council, will be disbanded.

Please send applications to ITTS secretary, Dr. Sonja Sucic at [sonja.sucic@meduniwien.ac.at](mailto:sonja.sucic@meduniwien.ac.at)

### Transporter Fun Corner Answers

- 1 This drug makes a transporter outward-facing  
**vanadate**
- 2 What every ABC transporter has  
**nucleotide-binding domain**
- 3 Jardetzky  
**alternating access**
- 4 Happiness transporter  
**dopamine transporter**
- 5 The driver of SLCs  
**electrochemical gradient**
- 6 The best place to be in June 2022  
**Copenhagen**
- 7 The ABC fuel  
**ATP**
- 8 The ultimate goal  
**publish**
- 9 PBD ID of the first SLC6-like transporter  
**2a65**
- 10 The 'C' in ABCG2  
**cassette**
- 11 All purpose transporter  
**ABCB1**
- 12 The best scientific society  
**ITTS**
- 13 Love transporter  
**serotonin transporter**
- 14 This drug makes a transporter inward-facing  
**ibogaine**
- 15 The most basic experiment  
**uptake**

## BECOME A MEMBER

### Renew Your Membership or Join ITTS Now

Payment can be made by credit card (via PayPal) or by check.  
Details on how to pay can be found at <http://www.ittsociety.org/join-itts>.



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## ITTS Executive Committee

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### President

**Balázs Sarkadi, M.D., Ph.D.**  
Research Centre for Natural Sciences, Budapest, Hungary



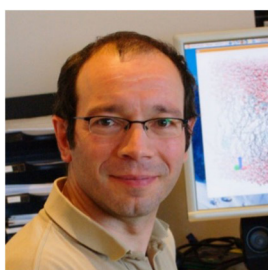
### Immediate Past President

**Lynette C. Daws, Ph.D.**  
University of Texas Health Science Center at San Antonio, TX, USA



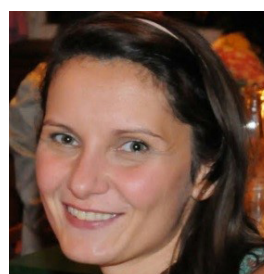
### Vice President

**John D. Schuetz, Ph.D.**  
St. Jude Children's Research Hospital, Memphis, TN, USA



### Vice President

**Thomas Stockner, Ph.D.**  
Medical University of Vienna, Vienna, Austria



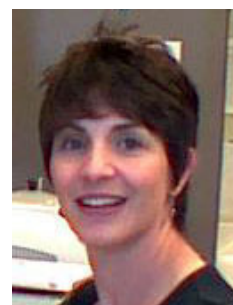
### Secretary

**Sonja Sucic, Ph.D.**  
Medical University of Vienna, Vienna, Austria



### Diversity & Inclusion Officer

**Renae Ryan, Ph.D.**  
The University of Sydney, NSW, Australia



### Treasurer

**Haley E. Melikian, Ph.D.**  
UMASS Medical School, Worcester, MA, USA

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## ITTS Councilors

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**Lucia Carvelli, Ph.D.**  
Florida Atlantic University,  
Jupiter, FL, USA



**Susan P.C. Cole, Ph.D.**  
Queen's University Cancer  
Research Institute, Kingston,  
ON, Canada

**Parastoo (Parry)  
Hashemi, MSci., Ph.D.**  
Imperial College London, UK



**Claus Juul Løland, Ph.D.**  
University of Copenhagen,  
Copenhagen, Denmark

**Christopher Mulligan,  
Ph.D.**  
University of Kent,  
Canterbury, UK



**Ali Salahpour, Ph.D.**  
University of Toronto,  
Toronto, ON, Canada

**Suzanne M. Underhill,  
Ph.D.**  
National Institute of Mental  
Health, Bethesda, MD, USA



**Robert Vandenberg,  
Ph.D.**  
University of Sydney, NSW,  
Australia

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## ITTS Associate Councilors

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**T. Lee Gilman, Ph.D.**  
Kent State University, Kent,  
OH, USA



**Bala Krishna Prabhala,  
Ph.D.**  
University of Southern  
Denmark, Odense, Denmark