

To whom it may concern

**Psychosis Research Unit** 

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## Application for a position as ESCAP governing board member

Madam, Sir,

As a physician, specialist in child and adolescent psychiatry (CAP) and psychotherapy in Switzerland, head of the Psychosis Research Unit at the Centre for Psychiatric Neuroscience and consultant in the Department of Psychiatry at Lausanne University Hospital (CHUV) with a tenure-track assistant professor position at the Faculty of Medicine and Biology of the University of Lausanne (UNIL), I am running for a position of ESCAP governing board member.

Since 2016, I have held the position of senior advisor and coordinator for the ESCAP Research Academy (RA). Together, with Alexis Revet (RA junior advisor) and Johannes Hebebrand (RA leader), we are in charge of the organization of biannual meetings to promote dual career as clinician-scientist and translational research in child and adolescent psychiatry. We also provide young residents across Europe with the opportunity to be involved in international studies and to participate in the writing of editorial articles (e.g., (Revet et al., 2018)). In total, we have organized 4 ESCAP RA meetings (i.e., Geneva 2017 (Revet et al., 2017), Vienna 2019 (Klauser et al., 2020a), Virtual 2020 and Maastricht 2022 (Revet et al., 2022)) and lead 2 collaborative research projects for ESCAP (i.e., CovCAP studies (Revet et al., 2021b; Revet et al., 2021a). In collaboration with the local organizing committee, we are currently preparing the next edition of the ESCAP RA meeting that will take place in Copenhagen (27-28 June 2023).

With a research focus on early psychosis, I also collaborated with Marco Armando and Jean-Philippe Raynaud from the ESCAP Clinical Division to promote the clinical high-risk model in CAP (Armando et al., 2020; Klauser et al., 2020b).

I have also been involved in discussions concerning CAP training in Europe, in connection with some of our colleagues of the UEMS-CAP (Deschamps et al., 2021; Deschamps et al., 2020). I also participated in the setting up of the ESCAP residential course taking place annually in Catania since 2019 and for which I am also teaching (Riccioni et al., 2023). At the national level, I am an associate member of the commission for postgraduate and continuing education of the Swiss society for CAP.





### Center for Psychiatric Neuroscience

If elected as a member, I wish to continue and strengthen my involvement in ESCAP in order to support the careers of young clinician-scientists in our specialty through meetings, networking, mentoring and collaborative work. I also would like to promote the early intervention model in CAP, not only for psychosis, but also for other disorders.

I believe that my current position as a clinician-scientist in CAP puts me in an ideal position to develop these projects for ESCAP.

I hope that you can see and share my visions and enable me this opportunity to turn these into reality. I look forward to discussing further with you.

With kind regards,

Paul Klauser

## Attachements:

- 1. Support letter from the Swiss society for child and adolescent psychiatry
- CV

#### References:

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Paul Klauser Curriculum Vitae

Date of birth: 28<sup>th</sup> April **1978**Place of birth: Geneva

Nationalities: **Swiss** and French Marital status: Married (two children)

Languages: French (mother tongue), English (fluent) and German (basic)

ORCID https://orcid.org/0000-0003-0284-4947

#### **Education**

01.2021: Swiss specialist qualification in child & adolescent psychiatry and psychotherapy.

11.2010: **M.D.**, Effects of general anaesthetics on cerebral development. Thesis available at http://archive-ouverte.unige.ch/unige:13017

12.2008: **Ph.D. in neuroscience**, Synaptic plasticity during development and learning/memory. Thesis available at http://archive-ouverte.unige.ch/unige:13016

10.2004: Diploma in Medicine.

## **Employment**

05-2022-present: **Head** of the Psychosis Research Unit, tenure-track **assistant professor** and **consultant psychiatrist** in the Department of psychiatry, CHUV, **Lausanne**, Switzerland.

10-2022-present: **Associate member** of the commission for postgraduate and continuing education of the **Swiss society for child and adolescent psychiatry and psychotherapy**.

03.2015-present: **Honorary appointment** at the University of Melbourne and Monash University in **Melbourne**, Australia.

04.2016-present: **Senior advisor** for the Research Academy of the **European Society for Child & Adolescent Psychiatry** (ESCAP).

05.2020-04.2022: **Chief resident** (50%) and **senior researcher** (50%) in **child & adolescent psychiatry**, Department of Psychiatry, CHUV, Lausanne.

05.2015-04.2020: **Resident** (50%) and **senior researcher** (50%) in **child & adolescent psychiatry**, Department of Psychiatry, CHUV, Lausanne.

01.2012-04.2015: **Postdoctoral fellowship** at the University of Melbourne and Monash University in **Melbourne**, Australia.

01.2009-12.2011: Resident in child & adolescent Psychiatry, Office Médico-Pédagogique, Geneva.

11.2004-12.2008: MD-PhD program, Lemanic Neuroscience Doctoral School, University of Geneva.

09.1997-10.2004: Medical school, University of Geneva.

#### Last approved research projects

09.2023-08.2026: **Swiss National Science Foundation** project grant funding (Principal applicant) for the project "A metabolic connectome based on high-resolution spectroscopic imaging to improve the early detection of youth at risk for schizophrenia".

09.2022-08.2025: **Weave agency** (German Research Foundation and Swiss National Science Foundation) funding (co-applicant) for the project "Oxidative stress as Mediator between Adverse Childhood Experiences and Mental Health Problems in the JAEL high risk cohort of young care leavers".

Paul Klauser Curriculum Vitae

02.2018-12.2022: Randomised controlled trial on the effects of mindfulness in adolescents – the Mindfulteen study - (<a href="www.mindfulteen.ch">www.mindfulteen.ch</a>) at HCUGE / UNIGE in Geneva and CHUV / UNIL in Lausanne, funded by the Leenaards Foundation (co-applicant).

## **Teaching**

- 05.2022-present: Thesis director of 3 MD students and 2 master students.
- 05.2018-present: **Lecturer** for **post-graduate** (Psychiatry, CHUV) and **pre-graduate** students (Biology, UNIL), Lausanne.
- 09.2019-present Lecturer at the Residential Course on assessment and treatment of psychiatric disorders in children and adolescents of the European Society for Child and Adolescent Psychiatry, Catania, Italy.
- 09.2010-12.2011: **Lecturer**, child & adolescent psychiatry, continuing education program: "**Neuroscience and psychiatry**", University of Geneva.
- 09-2001-12.2008: Member of the "Neuroclub"; **Neuroanatomy and neurophysiology teaching** in the undergraduate medical program, University of Geneva.

#### Awards and distinctions:

- 02.2018 Laureate of the **Adrian & Simone Frutiger Fellowship** (**US\$ 250K**) to fund 50% research time for 48 months on "Early detection of psychosis based on cerebral and peripheral biomarkers of oxidative stress: a longitudinal multimodal study in adolescents".
- 02.2018 Co-Laureate (PI) of a **Translational Medicine Research Grant from the Leenaards Foundation** (**US\$ 750K**) for "Early mindfulness-based intervention for vulnerable adolescents: a fMRI randomized controlled trial".
- 05.2014 Laureate of a **NCCR-SYNAPSY Clinician-Scientist fellowship** (**US\$ 120K**) to fund 50% research time for 24 months.
- 07.2014 Laureate of a **Monash Biomedical Imaging and School of Psychological Grant (AUD 5K)** to use 3T and 7T scanning facilities.
- 06.2013 Laureate of an **Advanced Researcher Fellowship** for 18 months (**US\$ 100K**, Swiss Foundation for Grants in Biology and Medicine in collaboration with the Swiss National Science Foundation).
- 11.2012: Laureate of a **Prospective Researcher Fellowship** for 6 months (**US\$ 30K**, Swiss National Science Foundation).
- 11.2011: Laureate of a **Prospective Researcher Fellowship** for 1 year (**US\$ 80K**, Swiss National Science Foundation).
- 08.2011 Fellow of the 17<sup>th</sup> annual International Psychoanalytic Association research training programme.
- 06.2006: Laureate of a **MD-PhD Scholarship** for 3 years (**US\$ 150K**, Swiss National Science Foundation, Swiss Academy of Medical Sciences and Velux Foundation).

Paul Klauser Curriculum Vitae

## Major scientific achievements:

During my MD-PhD in neurobiology, I immersed myself in brain plasticity and more specifically, in the microscopic study of synaptic plasticity during brain development, learning processes and under the influence of pharmacological agents. I reported in 3 original research papers that (i) the turnover of dendritic spines (excitatory synapses) decreases with age during brain development and is activity-dependent (Cereb Cortex 2008), (ii) dendritic spine dynamics (structural plasticity) interacts with long-term potentiation (functional plasticity) to promote the stabilization and clustering of synaptic contacts during memory processes (PLoS Biol 2008) and (iii) that drugs decreasing the E/I (excitation / inhibition) ratio can promote synaptogenesis during a critical period of early brain development (PLoS One 2009). Together, these results have contributed significantly to providing a new framework for better understanding how cortical networks can develop under the influence of brain activity, during growth, learning and under the influence of external agents, including drugs.

From the first years of my clinical training in child and adolescent psychiatry I was intrigued by psychosis. However, the gap between the microscopic aspects of my previous thesis work in animals and my young patients seemed too large. I needed to learn a new method of investigation compatible with the living human brain and that would allow the translation of microscopic observations at the mesoscale. During my postdoctoral fellowship, I trained in neuroimaging to facilitate the translation between my research activities and my clinical work with adolescents suffering from psychotic disorders. Neuroimaging studies in large cohorts of adolescents and young adults with a clinical high risk for psychosis (CHR) by myself (Schizophr Bull 2015) and others reported no or weak evidence for brain structural differences between CHR and healthy controls at baseline, suggesting that gross structural brain abnormalities may be relatively late events occurring mainly around the time of the first psychotic episode and progressing with the stage of the disease (Transl Psychiatry 2019). In one of the largest neuroimaging sample of patients with chronic schizophrenia to date, we observed widespread alterations in both gray (Am J Psychiatry 2017) and white matter (Schizophr Bull 2017). From an anatomical point of view, these diffuse abnormalities involve all cerebral lobes but from a topological perspective, we have reported these white matter alterations converge on connections between hub regions of the cerebral network (Schizophr Bull 2017) and underly a specific cognitive deficit, namely processing speed (Schizophr Bull Open 2021). Brain hubs exhibit high oxidative metabolism which could expose them to oxidative stress and inflammation, two interdependent parameters suspected to have a central role in the pathophysiology of schizophrenia. Accordingly, we have recently highlighted that add-on treatment with nacetylcysteine, a precursor of glutathione (main brain antioxidant), can restore white matter in the fornix of patients with early psychosis and that white matter improvements correlate well with the increase of brain glutathione levels, quantified using MR brain spectroscopy (*Transl Psychiatry* 2018).

I then realized the potential of **MR spectroscopic imaging** (MRSI) to bridge the gap between neuroimaging and biology. Indeed, proton MRSI allows both the quantification of neurometabolites and the assessment of their spatial distribution. Consequently, I contributed to the development of this technique (<u>NMR Biomed 2021</u>) and advocated to have our new high-resolution MRSI technique implemented in the scanning protocol of CHR in our Lausanne psychosis cohort and in our Mindfulteen study since 2018.

As <u>senior advisor</u> for the European Society for Child and Adolescent Psychiatry (ESCAP) Research Academy since 2016, I am **responsible** for the organization of biannual meetings (<u>Eur Child Adolesc Psychiatry 2017</u>; <u>Eur Child Adolesc Psychiatry 2020</u>; <u>Eur Child Adolesc Psychiatry 2022</u>) to promote **dual career as clinician-scientist** and **translational research** in our speciality (<u>Eur Child Adolesc Psychiatry 2018</u>). I also provide young residents across Europe with the opportunity to be involved in **international studies** such as the longitudinal survey on the impact of the COVID-19 pandemic on child and adolescent psychiatric services across Europe in April/May 2020 (<u>Eur Child Adolesc Psychiatry 2021a</u>) and after 1 year (<u>Eur Child Adolesc Psychiatry 2021b</u>).

In general, I have a strong research expertise in **neurobiology** (i.e., structural and functional synaptic plasticity), **neuroimaging** (i.e., structural MRI, diffusion MRI and spectroscopic MRI) and **psychiatry** (i.e., schizophrenia and related psychosis). I have successful national and **international** collaborations with research groups in Europe or overseas. My **dual expertise**, both clinical (i.e., specialist in child and adolescent psychiatry) and scientific (MD-PhD) facilitates the design and implementation of **translational research projects** (e.g., *Mindfulteen, JAELred*) as well as the **dialogue with the public**.

SGKJPP/SSSPEA, Altenbergstrasse 29, PF 686, 3000 Bern 8 **ESCAP** Dimitris Anagnostopoulos dimitris1952@gmail.com

Bern. 3. Mai 2023

# **ESCAP** governing board member application

Dear Dimitris.

I can hereby certify that the Swiss Society for Child and Adolescent Psychiatry fully supports the candidacy of Paul Klauser.

In the eyes of our society he has been involved in the ESCAP academy for many years. He represents the next generation of academics for our country.

We hope that he will be able to find his place in the European society which is so important for our country since Switzerland was one of the founding members of ESCAP.

Paul has strong organizing skills and will certainly be a futur asset for ESCAP as well as for our Swiss Society.

Best regards

Stephan Eliez

Co- President of the Swiss Societ

**SGKJPP / FMPP** SSPPEA / FMPP

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