

Registration form

This is a registration form for Host Institutions wanting to establish a Dioscuri Centre of Scientific Excellence.

Instructions for creating this registration form.

- Fill out the form in accordance with the following points. In the case of points 2 and 5, **choose only one option**.
- This form saved as PDF file must be signed electronically (PAdES format) by a person authorised to represent the research institution (i.e. Rector, Director of PAS Institute, authorized person). Declarations and signatures should be placed upon a separate page. This page should be filled out in Polish. Please do not attach the ATTACHEMENT 1 to the application.
- Along with the signed PDF of this form an editable file (.doc) containing identical information should be submitted. This .doc file should not be signed.
- Information to be included in the submission (all information must be written in English, with the exception of the declarations):

Registration form for Polish research institution

1. Research institution data (name and address):
Institute of Psychology, Polish Academy of Sciences, 1 Jaracza St., 00-378 Warsaw, email: sekretariat@psych.pan.pl
2. Type of research institution¹ (select one from the 9 listed options):
1) research unit of the Polish Academy of Sciences X
3. Head of the institution: **dr hab. Robert Balas, prof. IP PAS**
4. Contact information of designated person(s) for applicants and the NCN: first and last name, position, e-mail address, phone number, correspondence address:
dr hab. Małgorzata Fajkowska, prof. IP PAS, Deputy Director for Scientific Affairs and Head of the Laboratory of Personality Psychology, Institute of Psychology, Polish Academy of Sciences
e-mail: mfajkowska@psych.pan.pl malgosia.fajkowska@gmail.com,
office phone number: +48 (22) 583 13 80
mobile: +48 600 410 222
correspondence address: Institute of Psychology, Polish Academy of Sciences, 1 Jaracza St., 00-378 Warsaw

¹ As specified in "Addressees of the call"

5. Research discipline in which the strong international position of the institution ensures establishing a Dioscuri Centre (select one from the 25 listed disciplines):

Natural Sciences and Technology

- Mathematics
- Fundamental constituents of matter
- Condensed matter physics
- Chemistry
- Materials
- Computer science and informatics
- Systems and communication engineering
- Production and processes engineering
- Astronomy and space research
- Earth sciences

Life Sciences

- Molecular biology, structural biology, biotechnology
- Genetics, genomics
- Cellular and developmental biology
- Biology of tissues, organs and organisms
- Human and animal non-infectious diseases
- Human and animal immunology and infection
- Diagnostic tools, therapies and public health
- Evolutionary and environmental biology
- Applied life sciences and biotechnology

Arts, Humanities and Social Sciences

- Fundamental questions of human existence and the nature of reality
- Culture
- The study of the human past

- Individuals, institutions, markets
- Norms and governance
- Human nature and human society**

6. Description of important research achievements from the selected discipline from the last 5 years including a list of the most important publications, patents, other (*up to one page in A4 format*):

The Institute of Psychology, Polish Academy of Sciences (IP, PAS) is recognized worldwide as the leading psychological institute in Poland. Members of the institute conduct ground-breaking basic and translational research. This is evidenced by, among others, the high number of publications per staff member (annually approximately 3) and the increase in their quality as measured by the average journal impact factor (e.g., from 3.08 in 2016, 5.49 in 2017 to 5.64 in 2018). In 2016 IP PAS received the HR Excellence in Research award, granted by the European Commission. Research by the fellows of the Institute has demonstrable impact on mental and physical healthcare, wellbeing, education, industry, business, and policy. For example, the IP PAS was founded in 1980 by one of the pillars of the Polish psychology and the participant of the Polish Round Table Talks that initiated democratic transformation of the country, Professor Janusz Reykowski. He brought his social, political, and personality expertise in research, heralding a significant development of studies in these areas of psychology, both in IP PAS and Poland. Over time, research topics expanded into cognitive, linguistic, evolutionary and comparative, cross-cultural, and developmental psychology as well as clinical and social neuroscience. One of the leading research lines in IP PAS are studies on personality and individual differences. The key and exceptional areas of research at the Laboratory of Personality Psychology, founded in 2013, include personality coherence and incoherence, theory of personality traits, temperament in adults and children, dynamics and personality change, regulatory processes of personality, typology of anxiety and depression, and the classification of situations and its association with personality coherence/incoherence and character. The laboratory is led by professor Małgorzata Fajkowska, an author of the book entitled *Personality Coherence and incoherence: A perspective on anxiety and depression*. She published in top-tier and renowned journal of the field, such as the *Journal of Personality*, *Journal of Research in Personality*, *Personality and Individual Differences*, *European Journal of Personality*, and *Cognition and Emotion*. She serves as an Associate Editor of *Personality and Individual Differences* and the *European Journal of Personality* and she has been a member of International Society of Study Individual Difference Board of Directors since 2017. Establishing a Dioscuri Centre addressed to promote research on personality and individual differences would be part of a research hub in which the expertise of an international team of excellent scientists would have the opportunity to boost research in this area and bring personality science to a world-class level. Additionally, it would further serve to increase the visibility and reception of Polish academics working in the field and allow carrying on Professor Jan Strelau legacy in personality science.

Selected Publications:

- Cervone, D., Fajkowska, M., Eysenck, M.W., & Maruszewski, T. (Eds.). (2013). *Personality Dynamics: Meaning construction, the social world, and the embodied mind*. Clinton Corners, NY: Eliot Werner Publications.
- Corr, P.J., Fajkowska, M., Eysenck, M.W., & Wytykowska A. (Eds.). (2015). *Personality and control*. Clinton Corners, NY: Eliot Werner Publications.
- Domaradzka, E., & Fajkowska, M. (2018). Cognitive Emotion Regulation Strategies in anxiety and depression understood as types of personality. *Frontiers in Psychology*, 9(856). DOI: 10.3389/fpsyg.2018.00856.
- Fajkowska, M., Domaradzka, E., & Wytykowska, A. (2018). Attentional processing of emotional material in types of anxiety and depression. *Cognition and Emotion*, 32, 1448-1463. DOI: 10.1080/02699931.2017.1295026.
- Fajkowska, M., & Kreitler, S. (2018). Status of the trait concept in contemporary personality psychology: Are the old questions still the burning questions? *Journal of Personality*, 86, 5-11. DOI: 10.1111/jopy.12335.
- Fajkowska, M. (2013). *Personality coherence and incoherence: A perspective on anxiety and depressed mood*. Clinton Corners, NY: Eliot Werner Publications.
- Fajkowska, M. (2015). Complex-System Approach to Personality: Main Theoretical Assumptions. *Journal of Research in Personality*, 56, 15-32. doi:10.1016/j.jrp.2014.09.003
- Fajkowska, M. (2018). Personality Traits: Hierarchically Organized Systems. *Journal of Personality*, 86, 36-54. DOI: 10.1111/jopy.12314.

7. List of no more than 3 important research projects from the selected discipline awarded in national and international calls to the institution in the last 5 years (title, name of PI, source of funding, amount of funding):

- ***How does loneliness impact social information processing? From neural activity through physiological markers to everyday functioning*** (Jak samotność wpływa na przetwarzanie informacji społecznych? Od aktywności neuronalnej przez markery fizjologiczne do codziennego funkcjonowania), prof. dr hab. Łukasz Okruszek, 2019-2022, National Science Center, PLN 1 330 000.
- ***Evaluative conditioning - studies on basic mechanisms of attitude acquisition and change*** (Warunkowanie ewaluatywne - badania podstawowych mechanizmów powstawania i zmiany postaw), prof. dr hab. Robert Balas, 2016-2020, National Science Center, PLN 704 236.
- ***The role of dominant controlling functions over stimulation in cognitive performance in anxiety and depression*** (Wpływ dominujących funkcji kontroli stymulacji na funkcjonowanie poznawcze w lęku i depresji); prof. dr hab. Małgorzata Fajkowska, 2013-2019, National Science Center, PLN 1 499 960.

8. Description of the available laboratory and office space for the Dioscuri Centre (up to one page in A4 format):

The Dioscuri Centre established at IP PAS could benefit from all the laboratory and office space available at the Institute. The wide variety of laboratories enables

conducting research on diverse populations (from infants, children, youth, adults, to elderly people), which is extremely important in research focusing on personality processes, dynamics, and development. Additionally, it allows conducting research ranging from very basic and controlled (including animal studies) to more ecologically valid settings, with the use of virtual and augmented reality in a laboratory.

Moreover, the team working at the Dioscuri Centre would be assigned office space for their use as well as benefit from all the additional space, such as a conference room, library, etc. Currently, five laboratories exist within the IP PAS, all of which would be relevant to the Dioscuri Centre's functioning and their heads offer cooperation with the prospective Dioscuri Centre:

Animal Psychology Laboratory at IP PAS. This lab allows scientists to conduct research in the field of animal behaviour. The main scientific projects conducted now in the lab are focused on topics such as curiosity and exploratory behaviour, reaction to novelty, neophobia (including food neophobia), play-fighting in juvenile animals, as well as the influence of various environmental conditions on behaviour. The Laboratory organises training sessions in animal experimentation and provides expert opinions in animal psychology and animal welfare.

Infancy Research Laboratory at IP PAS (*Babylab*). The lab can host observational studies of developing populations (infants, young children, and pre-schoolers), as well as studies of adult social interactions that require video-recordings or the use of wearable accelerometric equipment. They can also be used for standardised assessments. Currently two scientific projects are running at the laboratory: (1) decoupling of motor, visual, and vocal activity in infancy during dyadic social interactions; and (2) the role of body movement for the development of visual attention in infancy. This research relies on automatic movement quantification and dynamical systems methods.

Clinical Neuroscience Laboratory at IP PAS. One of the aims of the laboratory is an integration of the community of researchers with clinical practitioners, with a purpose of easing the transfer of information between these two groups. Researchers of the laboratory conduct projects concentrated on (1) addictive behaviours (e.g., compulsive sexual behaviours, gambling disorders and alcohol abuse disorders); (2) mechanisms of psychosis and psychotic-like experience using experimental methods to better understand the cognitive mechanisms of hallucinations and delusions, and its risk states; and (3) the role of anger, anxiety, rumination, and hopelessness in depression as opposed to DSM criteria for depression.

The Neurophysiology and Neuromodulation Laboratory at IP PAS. The laboratory welcomes all researchers who wants to utilize EEG + transcranial electric stimulation in their studies. The following projects are currently conducted at the laboratory: (1) the role of brain networks in social information processing in schizophrenia - an investigation with multimodal brain imaging (EEG/fMRI) and neuromodulation (tDCS/EEG) methods; (2) behavioural and psychophysiological markers of response to social and non-social stressors in schizophrenia - a virtual reality study; (3) from biological motion processing to theory of mind-neural and behavioural correlates of social cognitive deficits in individuals with autism spectrum disorders; and (4) how loneliness impacts social information processing, from neural activity through physiological markers to everyday functioning.

Laboratory of Virtual Reality and Psychophysiology. The laboratory specialises in research on training and educational virtual environments, using full body tracking and wireless headsets. Studies of mono- and stereoscopic 360 movies and other VR experiences in combination with eye-tracking and psychophysiological measures might be conducted here. Three projects are currently running at the laboratory: (1) new forms and

technologies of narration (perception of stereoscopic cinematic VR experiences); (2) how multisensory virtual experience impacts environmental behaviour; and (3) impact of cinematic virtual experience on place attachment and civic engagement. Research at this laboratory makes use of virtual reality (VR), eye-tracking, recording of physiological responses (e.g., EDA, EMG, HRV), and brain activity (EEG).

9. List of the available research equipment for the Dioscuri Centre:

All of the below listed equipment will be available for use by the Dioscuri Centre:

The Animal Psychology Laboratory at IP PAS. The laboratory has professional standardised equipment for conducting behavioural tests: an open field arena, a board hole, an attentional set shifting chamber, a conditioned place preference chamber, a chamber to test exploratory behaviour, etc. The experimental room is also fitted with HD night vision video cameras, a microphone for ultrasonic vocalisation, and an integrated recording system. The vivarium is equipped in accordance with the current requirements and standards for animal welfare and breeding, and it can accommodate up to 100 laboratory rats. The employees have many years of experience conducting behavioural tests and caring for laboratory animals.

Infancy Research Laboratory at IP PAS (*Babylab*). The laboratory includes a carpeted area room (13 m²) for infant and parent interactions and an adjacent control room for monitoring the study and video-recording. The lab is in the process of equipping with 3 remote-controlled HD IP cameras and directional microphones, all recorded digitally and stored on an online server. Other equipment will include two sets of wireless high-end accelerometers with gyroscopes for studying limb and body movement during interactions (Xsense, Enschede, the Netherlands), as well as wearable audio recorders for day-long registration of child and parent speech production at home. Future purchasing plans include a mobile eye-tracking setup for visual attention studies with computer screen presentation of stimuli.

Clinical Neuroscience Laboratory at IP PAS. A wide variety of up to date neuroscientific tools are used, such as: EEG and other electrophysiological measures, fMRI, or tDCS.

The Neurophysiology and Neuromodulation Laboratory at IP PAS. The laboratory is equipped with an EEG Synamps RT (128 channel) + tdCS Neuroelectronics Starstim (4x8 + 1x 20 sets).

Laboratory of Virtual Reality and Psychophysiology at IP PAS. The laboratory has a test stand enabling simultaneous immersion of up to 4 people in a virtual environment and one surveillance workstation to enable preview and control over an experiment. The test stand consists of HTC Vive goggles equipped with 250 Hz SMI eye-trackers, 4 stations with 128 channel EEG Neuroscan (+ EDA, EMG, HR), 2 stations with BIOPAC MP 150 and BIONOMADIX amplifiers (EDA, EKG, EMG, RSP, PPG), precise registration of response times thanks to the Cedrus response box and StimTrackers. For virtual environment studies, we use Vizard Enterprise and Unity Pro.

10. List of the additional benefits (other than listed in call text) that the Institution declares to provide for the Dioscuri Centre (i.e.: additional funds, personal benefits, other) (*up to one page in A4 format*):

The Institute will contribute 25,000 Euro annually to the costs of the Dioscuri Centre. Employees of the Dioscuri Centre will have access to social benefits and administration support offered by IP PAS and PAS, including:

- resort hotel rooms on preferable prices in Poland
- access to Polish Academy Sciences Scientific Centres in Paris, Berlin, Moscow, Vienna, and Rome on preferable prices
- social insurance, including health insurance, as well as the possibility of benefiting from basic health services together with hospital treatment anywhere in the EU
- access to the free occupational healthcare centre of PAS
- bailouts to railways tickets in Poland (50% cost coverage by IP PAS)
- 36 days annual leave
- assistance to the director of the Centre with respect to other matters concerned with moving to Poland and living in Warsaw (e.g., finding academic employment for partners, appropriate schools for any children, access to language courses, etc.)
- the Research Office of IP PAS and Excellence Research Centre of PAS will provide information concerning current research grant possibilities as well as formal support in grant application or in grant management

11. Other information about the internationalisation of the research institution, international researchers employed at the institution, the availability of English language seminars etc. (*up to one page in A4 format*):

The long-lasting tradition of IP PAS refers to regular, open for public scientific seminars (<https://psych.pan.pl/pl/seminaria-naukowe/>). Currently, most seminars are conducted in Polish; however, switching to English is also possible.

Since last year, younger colleagues and PhD students of IP PAS organize poster sessions, and one away seminar in each July is organized by one of the Labs of IP PAS. In addition, our employees organize weekly seminars and regular meetings in English as they employ or collaborate with the scholars who do not speak Polish. Also, we organized several international conferences such as the conference of International Society for the Study of Individual Differences (ISSID) in 2017 as well as workshops such as "Data Analysis in R" (2018).

Together with two other PAS institutes - the Institute of Sociology and Philosophy and the Institute of Political Sciences - we founded a Doctoral School in 2019. Thus, there is a possibility for our employees to supervise PhD students or conduct lectures at this school. The official language of the Doctoral School is English.

The study visits of foreign scientists in the scientific units of the Polish Academy of Sciences are available as well as the foreign study visits of our employees.