Widening

Widening Participation

Widening Participation and Spreading Excellence actions under Horizon Europe, contribute to building research and innovation capacity for countries lagging behind. They will strengthen their potential for successful participation in transnational research and innovation processes, promote networking and access to excellence.

Participants in the programme will be able to upgrade their research and innovation systems, making them stronger and allowing the EU as a whole to advance together, in line with the policy objectives of the European Research Area.

Source: REA

PhD, DSc

Anna Ujwary-Gil

LABORATORY OF PROCESS AND NETWORK ANALYSIS

INSTITUTE OF ECONOMICS, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES

UJWARY@INEPAN.WAW.PL

+48 22 656 64 31

EXPERTISE

Our Laboratory is at the forefront of exploring how inter-organizational networks, digital innovation hubs, and ecosystems drive sustainability, digital transformation, and innovative business models in the digital era. We excel in utilizing advanced social network analysis techniques within the dynamic digital economy and sustainability landscape. Our research is dedicated to examining economic ecosystems such as industry clusters, innovation networks, and food cooperatives from network structure and relational perspectives.

SEEKING FOR COLLABORATION WITHIN

sustainability, digital transformation, digital innovation hubs, industry clusters, social network analysis

RELEVANT PROJECTS

REINVENT

REV4.0

PhD, DSc

Oskar Kowalewski

RESEARCH LABORATORY OF ADVANCED STUDIES

INSTITUTE OF ECONOMICS, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES

OKOWALE@INEPAN.WAW.PL

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EXPERTISE

Our laboratory is focused on research in the field of finance, in particular in the fields of corporate governance, banking, and new technologies (fin-tech). In the last area, the subject of study is the impact of innovation on the activities of financial intermediaries. The research carried out by the team is also interdisciplinary in nature, combining elements of finance, in particular banking, with agro-economics, and analyzes of the impact of climate change on the financial sector.

SEEKING FOR COLLABORATION WITHIN

finance, corporate governance, fintech, climate finance, agro-economics

RELEVANT PROJECTS

FINEXCA

Drought

PhD

Tomasz Panecki

RESEARCH IN SPATIAL HISTORY, HISTORICAL GEOGRAPHY & CARTOGRAPHY

INSTITUTE OF HISTORY, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES

TPANECKI@IHPAN.EDU.PL

+48 22 831 36 42

EXPERTISE

Our Department specialises in broadly-construed spatial history, historical geography & cartography. Our expertise stems mainly from the series “Historical Atlas of Poland: Detailed Maps of the 16th century”, which also provides a complete network of localities & administrative boundaries. Experience gained from working on this series will be useful in preparing similar datasets from subsequent timeframes. The data should be treated as a starting point for further research, e.g. on social, economic, political & cultural history.

SEEKING FOR COLLABORATION WITHIN

financial stability, macroprudential policies, systemic risk, inequality, agent-based modelling

RELEVANT PROJECTS

MACROPRU

Fulbright Junior Advance Research Award

PhD
Maciej Maryl
DIGITAL HUMANITIES CENTRE

INSTITUTE OF LITERARY RESEARCH, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
MACIEJ.MARYL@IBL.WAW.PL
+48 22 657 29 58

EXPERTISE

We have several PhD candidates and early-career researchers on our teams, keen to develop their academic careers and continue their involvement in international projects. We have diverse interests in the field of digital humanities: digital tools and methods in literary and cultural studies, corpus linguistics, digital editing, open scholarly communication (including innovations and social media), data, programming, user and stakeholder research. We are experienced in a variety of methods from desk research, through text analysis, to interviews, focus groups, and user testing.

SEEKING FOR COLLABORATION WITHIN

digital tools and methods, digital editing, open scholarly communication, UX and stakeholder research

RELEVANT PROJECTS

SHAPE-ID
OBERRED
Dariah.Lab
NEP4DISSENT

Professor
Anna Zielińska
DEPARTMENT OF LINGUISTICS

INSTITUTE OF LITERARY RESEARCH, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
ANNA.ZIELINSKA@ISPAN.EDU.PL
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EXPERTISE

I conduct research in the fields of dialectology, sociolinguistics, multilingualism, language con- tacts, language borderlands. I am the PI of the Polish-German research project “Language across generations: contact induced change in morpho-syntax in German-Polish bilingual speech” (financed by the NCN and DFG). This project aims to create an integrated description of Polish-German bi- lingualism in Poland and Germany, covering both grammar and sociolinguistic issues.

SEEKING FOR COLLABORATION WITHIN

language contacts, multilingualism, studies of multilingual communities, linguistic biographies

RELEVANT PROJECTS

LANGGENER

PhD, DSc
Nicole Dołowy-Rybińska
DEPARTMENT OF LINGUISTICS

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
NICOLE.DOLOWY-RYBINSKA@ISPAN.EDU.PL
+48 22 826 76 88

EXPERTISE

Our research team works on minority and minoritized languages of Europe and their communities in a broad political, cultural, and linguistic context. We pursue anthropological and sociolinguistic research that touches upon such issues as language policies, language practices, shift and attitudes, language rights, and language maintenance and revitalization.

SEEKING FOR COLLABORATION WITHIN

sociolinguistics, multilingualism, minorities and borderlands, language revitalization

RELEVANT PROJECTS

NCN/SonataBis
NCN/OPUS
SORBIAN

PhD
Karolina Ćwiek-Rogalska
DEPARTMENT OF LITERARY AND CULTURAL STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
KAROLINA.CWIEK-ROGALSKA@ISPAN.EDU.PL
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EXPERTISE

Our team is interested in the emergence of re- settlement cultures in post-displacement regions of Slavic Central Europe. The hypothesis we follow is that they are formed in contact with the materiality left behind by expellees. We work on Polish, Czech, and Slovak case studies, conducting fieldwork in selected regions as well as archival search queries in national and local archives.

SEEKING FOR COLLABORATION WITHIN

studies of material culture

RELEVANT PROJECTS

SPECTRAL RECYCLING

PhD, DSc
Karolina Bielenin-Lenczowska
DEPARTMENT OF NATIONALITY STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
KAROLINA.BIELENIN-LENCZOWSKA@ISPAN.EDU.PL
+48 504 071 786

EXPERTISE

I am social anthropologist and linguist, working on migration and diaspora. My latest research project focuses on border regimes on the outskirts of the European Union, and local responses to mobility regimes and injustices. I am using the Macedonian-Serbian and Polish-Belarusian borders as case studies. I also examined how the social and linguistic landscapes of towns inhabited by the descendants of Poles in southern Brazil have been transformed

SEEKING FOR COLLABORATION WITHIN

migration studies, diaspora studies, linguistic anthropology, landscape, ethnography

RELEVANT PROJECTS

UFSC Visiting Professor

PhD
Anna Zawadzka
DEPARTMENT OF NATIONALITY STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
ANNA.ZAWADZKA@ISPAN.EDU.PL
+48 22 826 76 88

EXPERTISE

My research fields are as follows: current historical politics in post-communist countries; the history of anticommunism in comparative perspectives; studies of antisemitism; synergy of antisemitism and anticommunism; the history, socio-political functions, and consequences of the “Jewish Bolshevism” stereotype; studies of the “Jewish Bolshevism” stereotype in an East-West comparative perspective; the social history of cold war era in Eastern and Central Europe; studies of prejudice.

SEEKING FOR COLLABORATION WITHIN

comparative studies of historical politics in Central and Eastern Europe

RELEVANT PROJECTS

NCN funded project

The Center for Cultural and Literary Studies of Communis

PhD, Assistant Professor

Robert Bialik

ABIOTIC STRESS RESEARCH: REDOX SIGNALS

INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

RBIALIK@IBB.WAW.PL

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EXPERTISE

The Department of Antarctic Biology is responsible for the scientific program that is undertaken at the Arctowski Polish Antarctic Station, providing expert opinions about Antarctica for numerous Ministries of the Republic of Poland. We specialize in physical oceanography, marine biology, glaciology, and meteorology, with a particular focus on biology, including conservation biology, ecology, and microbiology.

SEEKING FOR COLLABORATION WITHIN

Antarctic Important Bird and Biodiversity Areas, radiospectrometry, remote sensing in polar regions

RELEVANT PROJECTS

NCN/OPUS13

NCN/SONATA7

PhD, DSc

Jacek Łukasz Kolanowski

CENTRE FOR CHEMICAL BIOLOGY ERIC

INSTITUTE OF BIOORGANIC CHEMISTRY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

JACEK.KOLANOWSKI@IBCH.POZNAN.PL

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EXPERTISE

In our research group we design, develop, and use fluorescent probes and assays for multiparametric imaging in live cells. In our core facility we offer (1) high throughput screening for identification of drug candidates (fluor. & biolum., biochemical and cell-based assays including high content imaging), (2) ultraresolution (<5 nm, MINFLUX) & superresolution fluorescent microscopy (STED, STED-FLIM) in live cells, (3) synthesis of chemical probes, natural compound analogues and hit optimization.

SEEKING FOR COLLABORATION WITHIN

chemical biology, fluorescent probes, multiplexing, imaging, HTS, protein labelling, core facility

RELEVANT PROJECTS

EU-OPENSCREEN-DRIVE

ISIDORe

AgroSERV

Professor

Marek Figlerowicz

DEPARTMENT OF MOLECULAR AND SYSTEMS BIOLOGY

INSTITUTE OF BIOORGANIC CHEMISTRY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

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EXPERTISE

Our group focuses on cell engineering, particularly for the purposes of regeneration and interceptive medicine. We study factors shaping cell identities and states in the context of epigenetic rejuvena-tion, direct cell reprogramming, and intercellular communication via short- and long-distance RNA transport. We combine cutting-edge single-cell spatial multiomics, micro-patterned cell cultures, organoid models, and machine learning to model cell trajectories and control cell fate and functions.

SEEKING FOR COLLABORATION WITHIN

cardiology, AI,epigenetics, transdifferentiation, RNA, extracellular vesicles, CRISPR, APOBEC

RELEVANT PROJECTS

ECBiG-MOSAIC

NEB

LifeTime

LifeTime

PhD, DSc, Assoc. Prof.

Aleksandra Pękowska

DIOSCURI CENTER FOR CHROMATIN BIOLOGY AND EPIGENOMICS

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

A.PEKOWSKA@NENCKI.EDU.PL

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EXPERTISE

Our group uses stem cell models, high-throughput sequencing technologies (ChIP-seq, ATAC-seq, RNA-seq, Hi-C), CRISPR-Cas9-mediated genome editing, and computational tools to decipher the regulatory networks orchestrating astrocyte evolution and functions in mammals and to understand the interplay between chromatin topology and gene expression.

SEEKING FOR COLLABORATION WITHIN

chromatin biology, epigenomics and transcriptional regulation, astrocyte biology and neurodevelopment

RELEVANT PROJECTS

Dioscuri Grant

MSCA Doctoral Network

Assoc. Prof.

Adam Jurgoński

BIOLOGICAL FUNCTION OF FOOD TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

A.JURGONSKI@PAN.OLSZTYN.PL

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EXPERTISE

Elucidating the physiological and molecular mechanisms through which both well-known and novel dietary components influence gut function and metabolic health. The team conducts controlled feeding experiments using animal models of disorders characteristic of diet-related diseases. The research to date has focused on: • phenolic extracts and fiber–phenolic preparations, • prebiotic preparations and food additives, • unconventional sources of unsaturated fatty acids, • trace minerals in nanoparticle form.

SEEKING FOR COLLABORATION WITHIN

preparation, chemical analysis, evaluation of the properties of novel food ingredients

RELEVANT PROJECTS

NCN/OPUS

NCN/OPUS

NCN/SONATA

Assoc. Prof.

Radosław Kowalski

AQUATIC ORGANISM REPRODUCTIVE BIOTECHNOLOGY TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

R.KOWALSKI@PAN.OLSZTYN.PL

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EXPERTISE

The research interests focus broadly on the reproduction of aquatic organisms and its support under controlled conditions. This includes understanding physiological and biochemical mechanisms underlying gamete function, as well as developing and optimizing methods that enhance reproductive success in both experimental and applied contexts, including aquaculture and conservation programs. Specific expertise: sperm motility and kinematic analysis, seminal plasma biochemistry and functional biomarkers, sperm cryopreservation and long-term storage of genetic resources.

SEEKING FOR COLLABORATION WITHIN

genetic and genomic analyses, molecular data, reproductive processes

RELEVANT PROJECTS

Salmocross

Professor
Izabela Wocławek-Potocka
EMBRYO BIOLOGY TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS
DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
I.WOCLAWEK-POTOCKA@PAN.OLSZTYN.PL
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EXPERTISE

We research advanced reproductive biotechnology in cattle, focusing on pre-implantation embryo development and oocyte quality markers to assess embryo viability. Our core method is in vitro embryo production (IVP), supporting micromanipulation, gene expression analysis, immunofluorescence, embryo culture, cryopreservation, and transfer. We study oocytes collected post-mortem and in vivo (OPU) from mature and immature animals, including young cattle to accelerate genetic progress. Our findings are translated into practical field applications for veterinarians and cattle breeders.

SEEKING FOR COLLABORATION WITHIN

embryotransfer, in vitro embryo production, veterinary

RELEVANT PROJECTS

NCN OPUS Lap
NCN OPUS
NCN OPUS

Professor
Iwona Grabowska
BIOELECTROANALYTICS TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS
DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
I.GRABOWSKA@PAN.OLSZTYN.PL
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EXPERTISE

Studying the interactions between biomolecules using electroanalytical methods to develop innovative analytical systems that can be applied in medicine, veterinary science, food analysis, and environmental protection. We are particularly interested in: • testing of antibodies, single-stranded nucleic acids (ssDNA, ssRNA), and aptamers as recognition element in electrochemical biosensors, • exploring new carbon or gold nanomaterials as transducer element in biosensors, • systems for targeted and controlled delivery of therapeutically significant compounds to cancer cells.

SEEKING FOR COLLABORATION WITHIN

electrochemical biosensors, aptasensors, immunosensors, genosensors, biomarkers

RELEVANT PROJECTS

ADEVASCO
NCN OPUS
NCN OPUS

Assoc. Prof.
Joanna Wiśniewska
LABORATORY OF SPATIAL EPIGENETICS

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS
DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
J.BUKOWSKA@PAN.OLSZTYN.PL
+48 89 500 33 12

EXPERTISE

The research of the Regenerative Biology Team focuses primarily on the cellular and molecular mechanisms of skin wound healing. We are particularly interested in the following areas: • the impact of diet, aging, and metabolic status on the wound healing process; • skin regeneration versus repair; • wound healing–associated skin fibrosis; • metabolic regulation of skin regeneration and fibrosis; • skin immunology; • stem cells in wound healing and skin regeneration; • *in vitro* skin models in translational research

SEEKING FOR COLLABORATION WITHIN

metabolic diseases, nutrition , aging and regenerative medicine, immunology, inflammation, bioengineering

PhD, DSC

Anna Piliszek

DEPARTMENT OF EXPERIMENTAL EMBRYOLOGY

INSTITUTE OF GENETICS AND ANIMAL BIOTECHNOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

A.PILISZEK@IGBZPAN.PL

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EXPERTISE

Our team is interested in the earliest stages of mammalian development. In particular, we are focused on the mechanisms of first lineage differentiation in mammalian embryos. Our studies include establishment and maintenance of pluripotency and extraembryonic lineage formation, as well as the influence of embryonic environment on cell differentiation and reprogramming. We use the mouse and rabbit as our main experimental models.

SEEKING FOR COLLABORATION WITHIN

pluripotency, extracellular matrices, mechanobiology, modeling of cellular processes in silico

RELEVANT PROJECTS

NCN/SONATA

NCN/SONATABIS

PhD, DSC

Jan Zawala

INTERFACIAL INTERACTIONS IN DISPERSED SYSTEMS RESEARCH TEAM

INSTITUTE OF CATALYSIS AND SURFACE CHEMISTRY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

JAN.ZAWALA@IKIFP.EDU.PL

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EXPERTISE

The laboratory is focused on fundamental studies on mechanisms underlying dispersed systems stability. In particular we are interested in initial stages of the dispersed systems formation where dynamic conditions are crucial for kinetics of formation of adsorption layers and properties of fluid and solid interfaces. We conduct work on hydrodynamics of bubbles and drops in surfactant solutions, stability of liquid films under dynamic conditions and kinetics of adsorption at various interfaces.

SEEKING FOR COLLABORATION WITHIN

bubbles and drops, fluid/fluid and fluid/solid interfaces, dispersed systems, foams and emulsions

RELEVANT PROJECTS

NCN/OPUS

NCN/SONATABIS

PhD.

Adam Kłosin

LABORATORY OF SPATIAL EPIGENETICS

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

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EXPERTISE

Our laboratory investigates the spatial organization of transcription during animal development and stress responses, focusing specifically on how transcription factors and chromatin interact to form nuclear condensates. By combining biochemical reconstitution with functional studies in the nematode *Caenorhabditis elegans*, the group aims to dissect the molecular composition, assembly mechanisms, and physiological relevance of these dense protein assemblies. Ultimately, we hope to uncover conserved mechanisms of transcriptional control that will enable new therapeutic strategies.

SEEKING FOR COLLABORATION WITHIN

biological phase separation, heat shock, transcriptional condensates, chromatin biology, embryonic development

RELEVANT PROJECTS

ERC

Professor

Ewelina Knapska

LABORATORY OF EMOTIONS NEUROBIOLOGY

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

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EXPERTISE

Our research aims to understand the neural circuit mechanisms controlling social interaction and reward learning in health and disease. We focus on the amygdala and its functional connectivity with other brain structures, using neuroanatomical methods, opto- and chemogenetics, and recording neuronal activity. We have developed social communication, emotion discrimination, and reward learning behavioral protocols, including an automated system to track the behavior of mice in semi-naturalistic settings.

SEEKING FOR COLLABORATION WITHIN

autism/depression models, social behavior/reward processing in humans, ultrasound brain stimulation

RELEVANT PROJECTS

BRAINCITY

PainSociOT

EnviroMood

PhD, DSc, Assoc. Prof

Grzegorz Sumara

DIOSCURI CENTER FOR METABOLIC DISEASES

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

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EXPERTISE

Our Laboratory seeks to elucidate the signaling pathways regulating basic metabolic processes in adipose tissue, intestine and liver as well as inter-organ cross-talk, perturbations of which often result in metabolic diseases. We combine cell biology, biochemical and -omics approaches with mouse genetics. By determining essential signaling networks we aim to contribute to more targeted pharmacological strategies for the treatment of metabolic diseases such as obesity or type 2 diabetes (T2D).

SEEKING FOR COLLABORATION WITHIN

metabolism, obesity, diabetes, kinase signaling, ERK3, protein kinase D (PKD), lipolysis, ubiquitin

RELEVANT PROJECTS

SiCMetabol

Dioscuri Grant

TR 240

PhD

Magdalena Winiarska

DEPARTMENT OF IMMUNOLOGY

MOSSAKOWSKI MEDICAL RESEARCH CENTRE, PAS

DIVISION V - MEDICAL SCIENCES

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EXPERTISE

The Department of Immunology is focused on elucidating the mechanisms regulating immune cell activation and advancing cancer immunotherapy using monoclonal antibodies, effector cells and cells engineered with chimeric antigen receptors (CAR). Our work ranges from basic research in the field of cancer immunology to translational research aimed at improving the efficacy of cancer therapy.

SEEKING FOR COLLABORATION WITHIN

adoptive therapy, CAR-T, monoclonal antibodies, tumour microenvironment, drug target, immunooncology

RELEVANT PROJECTS

STIMUNO ERC Starting Grant

ArTCell EIC PATHFINDER

MAVERICK Swiss-Polish Cooperation Programme

MAESTRO15

PhD
Magdalena Moskal-del Hoyo
PALAEOBOTANY AND PALAEOENVIRONMENT GROUP

W. SZAFER INSTITUTE OF BOTANY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
M.MOSKAL@BOTANY.PL
+48 12 424 17 71

EXPERTISE

Our focus lies in understanding vegetation development in the context of long-term climate shifts, spanning from the Mesozoic to the Holocene. Utilizing fossil plant and fungi remnants from natural and archaeological sites, we reconstruct flora diversity from pre-Quaternary to Quaternary periods. Alongside taxonomic examinations, we meticulously reconstruct paleoenvironments, analyse plant-environment interactions, and explore adaptation mechanisms to local topographic and microclimatic changes.

SEEKING FOR COLLABORATION WITHIN

palaeobotany, archaeobotany, taxonomy, palaeoenviroment, vegetation reconstruction, palaeodiet

RELEVANT PROJECTS

NCN/SONATABIS
NCN/OPUS
NCN/OPUS
NCN/OPUS

PhD
Adam Flakus
BIODIVERSITY AND EVOLUTION GROUP

W. SZAFER INSTITUTE OF BOTANY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
A.FLAKUS@BOTANY.PL
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EXPERTISE

Our team studies the evolution of symbiotic fungal systems in global biodiversity hotspots. We focus on molecular phylogeny, climate change, adaptive processes and systematics of largely unexplored lichen-forming fungi and their microbiome in the tropical Andes. We employ extensive environmental studies, high-throughput sequencing and advanced bioinformatics. Our group also studies fungi co-occurring with other organisms, their global evolution, host specificity, and biogeography.

SEEKING FOR COLLABORATION WITHIN

lichenology, mycology, molecular biology, biodiversity, evolution, taxonomy, tropics, climate change

RELEVANT PROJECTS

NCN/PRELUDIUM
NCN/OPUS
NCN/OPUS
NCN/OPUS

PhD
Małgorzata Stanek
LABORATORY OF ECOCHEMISTRY AND ENVIRONMENTAL ENGINEERING

W. SZAFER INSTITUTE OF BOTANY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
M.STANEK@BOTANY.PL
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EXPERTISE

We specialize in research on two global environmental problems - plant invasion and soil pollution. We are particularly interested in soil conditions and their interactions with plants as well as the structural and functional biodiversity of microbial communities. Our research interests revolve around the plants' secondary metabolites, their allelopathic properties and roles in the decomposition and revitalization of invaded habitats. We use classical and advanced analytical methods (GC-MS, NGS).

SEEKING FOR COLLABORATION WITHIN

invasive plants, heavy metals, ecosystems, secondary metabolites, plant-soil-microbe interactions

RELEVANT PROJECTS

IMPAWOS
QRUBRA
ToBeLawn
INVASION

PhD
Magdalena Szechyńska-Hebda
PLANT BIOLOGY GROUP

W. SZAFER INSTITUTE OF BOTANY, PAS
DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
M.SZECHYNSKA-HEBDA@BOTANY.PL
+48 12 424 17 66

EXPERTISE

Our research focuses on plant physiological and ecological responses to environmental stresses, with particular emphasis on climate change. We investigate stress signalling pathways and photosynthetic performance at multiple spatial and temporal scales, integrating satellite and remote sensing, thermal imaging and advanced hyperspectral methods with chlorophyll fluorescence and biochemical analyses. Our innovative tools for environmental monitoring contributes to the creation of smart biotechnological solutions.

SEEKING FOR COLLABORATION WITHIN

biochemistry, biophysics, AI-based solutions, biotechnological applications, system biology

RELEVANT PROJECTS

COUTECH
COOLCITY

PhD
Paweł Kapusta
FUNCTIONAL AND EVOLUTIONARY ECOLOGY GROUP

W. SZAFER INSTITUTE OF BOTANY, PAS
DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
P.KAPUSTA@BOTANY.PL
+48 12 424 17 20

EXPERTISE

Our research group aims to explain the relationships between organisms and the environment, and their evolutionary factors and effects. Specifically, we focus on understanding the importance of plant-animal interactions for ecosystem functioning and the plant-soil biota feedback under environmental stresses, such as biological invasions, pollution, and climate change. We also study the spatial aspects of ecological processes and assess environmental quality using bioindicators.

SEEKING FOR COLLABORATION WITHIN

biodiversity, soil microbes, invasive plants, heavy--metal pollution, plant-animal interactions

RELEVANT PROJECTS

NCN/OPUS
NCN/PRELUDIUM
NCN/OPUS
NCN/SONATA

PhD
Michał Adamski
FUNCTIONAL AND EVOLUTIONARY ECOLOGY GROUP

INSTITUTE OF GEOLOGICAL SCIENCES, PAS
DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES
M.ADAMSKI@BOTANY.PL
+48 12 424 17 32

EXPERTISE

The team is engaged in the search for bioactive compounds synthesized by algae and cyanobacteria. We specialize in the qualitative and quantitative analysis of cyanobacterial toxins (cyanotoxins), methods of their decomposition, and their impact on the cells of living organisms, including humans. Our research also focuses on the ecological relationships between microorganisms and aquatic plants, as well as phytoremediation. The team's research also involves antioxidants produced by algae.

SEEKING FOR COLLABORATION WITHIN

harmful algal blooms, cyanotoxins, antioxidant systems, phytoremediation, aquatic microorganisms

RELEVANT PROJECTS

ExtrAlgae
NCN/OPUS

PhD, DSc

Krzysztof Szczepanowicz

NANOSTRUCTURES OF SOFT MATTER

INSTITUTE OF CATALYSIS AND SURFACE CHEMISTRY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

KRZYSZTOF.SZCZEPANOWICZ@IKIFP.EDU.PL

+48 12 639 51 21

EXPERTISE

The research group “Soft Matter Nanostructures” under the leadership of associate professor Krzysztof Szczepanowicz at the ICSC PAS has extensive experience in the research in the field of surface chemistry and dispersed systems. Investigations are focused on adsorption phenomena, surfactants, mechanism of foam formation, nano- and colloidal particles interactions, thin films, encapsulation of active chemical compounds, nanostructured coatings in an application for biocompatible materials, and printed electronics.

SEEKING FOR COLLABORATION WITHIN

surfactants, foams, nanoparticles, thin films, encapsulation, drug delivery, nanocoatings, biomaterials

RELEVANT PROJECTS

TheraforNerv

NanoPaint

Professor

Marek Strączkowski

HEAD OF PROPHYLAXIS OF METABOLIC DISEASES TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

M.STRACZKOWSKI@PAN.OLSZTYN.PL

+48 85 722 25 58

EXPERTISE

Research within the Prophylaxis of Metabolic Diseases Team focuses on the pathogenesis of insulin resistance, with particular emphasis on assessment of insulin resistance in individuals at increased risk of type 2 diabetes, pathogenesis of skeletal muscle and adipose tissue insulin resistance - tissue transcriptomic, cell cultures mechanisms of an improvement in insulin sensitivity during lifestyle intervention.

SEEKING FOR COLLABORATION WITHIN

pathogenesis of skeletal muscle and adipose tissue insulin resistance

RELEVANT PROJECTS

NCN OPUS

Professor

Stanisław Mazur

DEPOSITIONAL SYSTEMS RESEARCH GROUP

INSTITUTE OF GEOLOGICAL SCIENCES, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

NDMAZUR@CYF-KR.EDU.PL

+48 668 581 910

EXPERTISE

We combine potential field geophysics with seismic and geological data for basic and applied studies. We are interested in tectonics, structural geology in relation to fold-and-thrust belts, sedimentary basins, and passive continental margins. We conduct research related to prospecting for critical raw materials and the geohazard impact on critical infrastructure. Our experience in geophysics and geology allows to create integrated geosystem models at various scales and levels of precision.

SEEKING FOR COLLABORATION WITHIN

geophysics, critical raw materials prospection, tectonics, structural geology, seismology

RELEVANT PROJECTS

Birth of Pacific Ring of Fire

MSc. Eng.

Sebastian Bykuć

CENTRE OF HEAT AND POWER ENGINEERING / DEPARTMENT OF DISTRIBUTED ENERGY AND RES / KEZO RESEARCH CENTRE

INSTITUTE OF FLUID-FLOW MACHINERY, PAS

DIVISION IV - ENGINEERING SCIENCES

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EXPERTISE

The team has experience with planning, modelling and management of energy systems (EnergyPro, EnergyPLAN; TRNSYS, PVsyst, Simulink), with analysis of heat/electricity demand in cities and municipalities using limited data (GIS tools, fuzzy analysis), integration of RES, EV and energy storage systems (real world demonstrators), and with aspects such as energy sector coupling, PV, wind turbines, heatpumps, CHP testing, heat and electricity storage testing, CFD analysis (Ansys), V2G technologies.

SEEKING FOR COLLABORATION WITHIN

energy communities, V2X, spatial analysis, fuzzy processing, decarbonization of heating, RES integration

RELEVANT PROJECTS

SERENE

SUSTENANCE

HYPERGRYD

LOCALISED

V4Grid

Associate Professor

Magdalena Mieloszyk

TRICITY DOCTORAL SCHOOL OF THE POLISH ACADEMY OF SCIENCES

INSTITUTE OF FLUID-FLOW MACHINERY, PAS

DIVISION IV - ENGINEERING SCIENCES

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EXPERTISE

TSD PAN offers education for PhD students from all over the world in mechanical engineering; civil engineering, Earth and related environmental sciences. Thanks to NAWA, TSD PAN organizes summer schools with lecturers - experts from national/ international institutes/ universities/ companies. TSD PAN participates in mobilities (e.g. ERASMUS+, NAWA) and promotes Poland (Gdańsk) for foreigners. Since 2020, TSD PAN organizes the annual Doctoral Seminar for PhD students.

SEEKING FOR COLLABORATION WITHIN

doctoral network, summer schools, clean energy, functional materials, structural health monitoring

RELEVANT PROJECTS

CenMAT

mTSDPAN

ERASMUS+

PhD, DSc

Joanna Wojewoda-Budka

DEPARTMENT OF MULTILAYER MATERIALS

INSTITUTE OF METALLURGY AND MATERIALS SCIENCE, PAS

DIVISION IV - ENGINEERING SCIENCES

J.WOJEWODA@IMIM.PL

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EXPERTISE

Our team has a long-time experience in the development, testing and characterization of coatings, including electrodeposited and electroless copper- and nickel-based coatings. Our scientific interests are also focused on the diffusion phenomena at the interconnections dedicated to electronics, joining technologies such as diffusion soldering and explosive welding as well as the wetting tests performed at high temperature.

SEEKING FOR COLLABORATION WITHIN

coatings, soldering, materials microstructure characterization

RELEVANT PROJECTS

Pb-free

AntiPathCoat

PhD, DSc

Krzysztof Grochla

INTERNET OF THINGS GROUP

INSTITUTE OF THEORETICAL AND APPLIED INFORMATICS, PAS

DIVISION IV - ENGINEERING SCIENCES

KGROCHLA@IITIS.PL

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EXPERTISE

Internet of Things (IoT) research, with emphasis on wireless communication and network protocols. We design and analyze the performance of network protocols, address issues related to interoperability, and the semantic description of data and operation of IoT systems. We investigate auto-configuration, energy consumption minimization, and localization in embedded devices, especially in LP WAN and indoor localization using UWB and BLE AoA.

SEEKING FOR COLLABORATION WITHIN

practical application of IoT, long-range low-power wireless communication and indoor positioning

RELEVANT PROJECTS

Infrastructure Recovery

DOSS

Methodology

Professor

Szymon Jaroszewicz

STATISTICAL ANALYSIS AND MODELING GROUP

INSTITUTE OF COMPUTER SCIENCE, PAS

DIVISION IV - ENGINEERING SCIENCES

S.JAROSZEWICZ@IPIPAN.WAW.PL

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EXPERTISE

Our group is focused on statistical and machine learning methods, being particularly interested in causal discovery, from experimental and observational data, especially uplift modeling, heterogeneous treatment effect estimation, multi-label classification and positive-and-unlabeled data. We have also significant expertise in analysis of high-dimensional data, especially using information theoretical methods. We are also skilled in practical applications of machine learning and statistical methods.

SEEKING FOR COLLABORATION WITHIN

causal discovery, high dimensional data, positive-and-unlabeled classification, variable selection

RELEVANT PROJECTS

SAI

Uplift modeling in marketing and biomedical research.

PhD, DSc

Maciej Ogrodniczuk

DEPARTMENT OF LANGUAGE MODELING

INSTITUTE OF COMPUTER SCIENCE, PAS

DIVISION IV - ENGINEERING SCIENCES

M.OGRODNICZUK@IPIPAN.WAW.PL

+48 533 675 675

EXPERTISE

Maciej Ogrodniczuk specializes in language modelling, both linguistic and computational, development of language resources and processing natural language at all levels of complexity, from morphology to discourse. His team creates large datasets of language data, implements innovative methods to analyze them, trains large language models (LLMs) and develops AI-based solutions with linguistic components.

SEEKING FOR COLLABORATION WITHIN

natural language processing (NLP), artificial intelligence (AI), linguistics, information technology

RELEVANT PROJECTS

CLARIN

CURLICAT

DARIAH

HOMADOS.

PhD, DSc
Michał J. Dąbrowski
COMPUTATIONAL BIOLOGY GROUP

INSTITUTE OF COMPUTER SCIENCE, PAS

DIVISION IV - ENGINEERING SCIENCES
M.DABROWSKI@IPIPAN.WAW.PL

EXPERTISE

Dr. Dąbrowski specializes in bioinformatics, focusing on the epigenetics, especially DNA methylation in NGS data. His team discovers non-coding DNA regions contributing to i.e. gene expression regulation, 3-D chromatin structure composition, whose disorders result in pathological states and due to that are further tested in laboratory. They created a tool for Feature Selection in multidimensional data (MCFS-ID), returning ranking of features to be further used in classification as well as CytoMeth for comprehensive DNA methylation analysis.

SEEKING FOR COLLABORATION WITHIN

machine learning, feature selection, epigenetics, glioma tumor, single cell, population genetics

RELEVANT PROJECTS

Unveiling the role of VPS10P domain receptors

Monte Carlo Feature Selection

Professor
Leonora Bużańska
DEPARTMENT OF STEM CELL BIOENGINEERING

MOSSAKOWSKI MEDICAL RESEARCH CENTRE, PAS

DIVISION V - MEDICAL SCIENCES
BUZANSKA@IMDIK.PAN.PL
+48 602 575 161

EXPERTISE

Our expertise is neurobiology, stem cells (human iPSC and MSC), genetic engineering (gene editing, genetic vectors), bioengineering (natural and synthetic scaffolds, cell/biomaterial or cell/ECM interphase) and GMP compliant precision medicine. We are modeling neural disorders with human iPSCs lines (isogenic/control) and brain organoids (whole brain and region specific) in biomimetic microenvironment. We derive therapeutically competent cells and MVs for preclinical and clinical treatment.

SEEKING FOR COLLABORATION WITHIN

modeling neuropathology with iPSCs and brain organoids, MSCs and secretome, GMP-based cell therapies

RELEVANT PROJECTS

NCN/OPUS18

NCN/PRELUDIUM 21

OPUS28 Lap

NCN/Preludium Bis2022

PhD
Izabela Sabała
LABORATORY OF PROTEIN ENGINEERING

MOSSAKOWSKI MEDICAL RESEARCH CENTRE, PAS

DIVISION V - MEDICAL SCIENCES
ISABALA@IMDIK.PAN.PL
+48 22 608 64 51

EXPERTISE

Our studies are focused on peptidoglycan hydrolases. We investigate how their biochemical and structural features interact with bacterial cell walls and the roles they play in bacterial cells and virulence. We also test their bacteriolytic activity and their potential applications in various indications in medicine, veterinary science, as well as the food production chain.

SEEKING FOR COLLABORATION WITHIN

biological antimicrobials, antibiotic resistance, bacterial cell wall metabolism

RELEVANT PROJECTS

Prev-Eco POLNOR19

SafeFoodCtrl POLNOR19

Medical Research Agency National Reconstruction Plan

NCN/OPUS26


PAN
POLISH ACADEMY OF SCIENCES
PolSCA
Polish Science
Contact Agency
in Brussels