





WHERE KNOWLEDGE GROWS



THE GMI: AUSTRIA'S LARGEST INTERNATIONAL RESEARCH CENTER FOR FUNDAMENTAL PLANT RESEARCH



LIAM DOLAN
Scientific Director



MARKUS KIESS
Business Director

Mission Statement

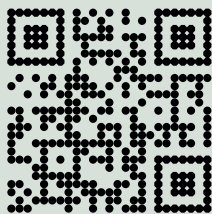
Land plants and algae – collectively, plants – power almost all life on Earth, by transforming our sun’s energy into chemical energy through photosynthesis. Understanding how molecular mechanisms support life in these photo-autotrophic organisms is the central mission of research at the GMI.

We aim to understand how plants live, grow, reproduce, and adapt to their environments by discovering molecular mechanisms necessary for life. We study diseases, pests, and ecological interactions that affect the health and productivity of plants, both in natural ecosystems and in

agriculture. We analyze genetic diversity across populations, discovering how plants adapted to their environments over the past 1.2 billion years, and helping us predict how they may cope in changing environments in the future.

Research at the GMI reveals the secrets behind the wonder of the natural world. Our research is driven by our curiosity about how photosynthetic organisms work; our findings can help conserve natural ecosystems and develop sustainable practices that enable humans to live within the resource limits of our planet.

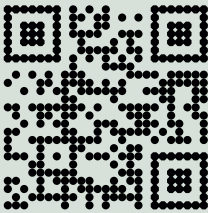
A Flagship of the Austrian Academy of Sciences (OeAW)



The GMI is a flagship institute of the OeAW, Austria’s largest non-university research institution.

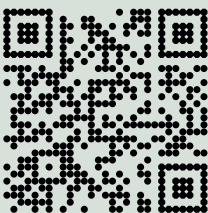
Founded in 1847, the OeAW is dedicated to innovative basic research and the dissemination of knowledge for the progress of science and society. The OeAW serves as a learned society of 760 members, advising policy and society, and as a major supporter of non-university research. With 26 research institutes and over 1,900 employees, it stimulates pioneering research in the natural sciences, social sciences, and humanities.

Understanding Plant Function to Address Global Challenges



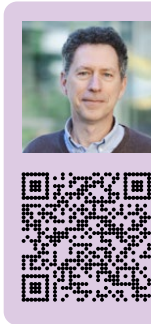
At the Gregor Mendel Institute of Molecular Plant Biology (GMI) of the Austrian Academy of Sciences (OeAW), our scientists explore the world of plants, from molecules to ecosystems. Using diverse models, we investigate epigenetics, cell biology, plant-pathogen interactions, development, evolution, and population genetics. Our fundamental discoveries reveal how plants and algae function and adapt in a changing world.

GMI at the Vienna BioCenter: A Global Hub for Life Sciences



The GMI is a key member of the Vienna BioCenter (VBC), the premier life science hub in Central Europe. This world-class campus unites over 2,000 scientists across seven research institutes and 40+ biotech companies. The GMI collaborates within this vibrant ecosystem alongside AITHYRA, the Institute of Molecular Biotechnology (IMBA), the Research Institute of Molecular Pathology (IMP), the Max Perutz Labs, the Faculty of Life Sciences, and the Centre of Microbiology and Environmental Systems Science (CeMESS), both of the University of Vienna.

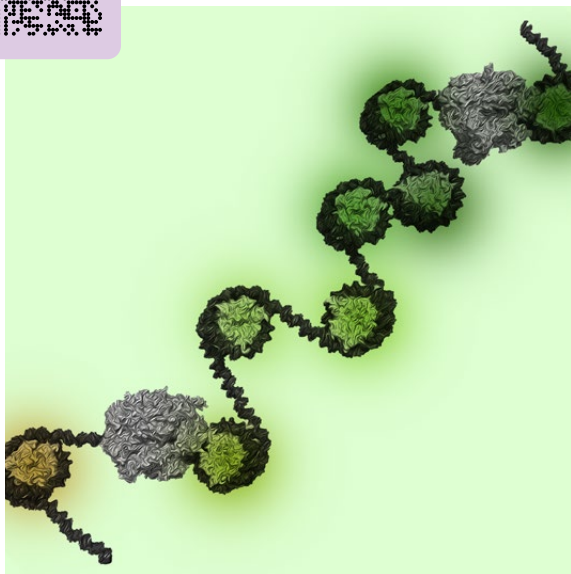
DIVERSE PERSPECTIVES, SHARED DISCOVERY: GMI RESEARCH GROUPS



Frédéric BERGER

EVOLUTION AND FUNCTION OF CHROMATIN PROTEINS

Research question: *How did chromatin evolve?*



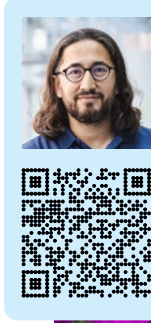
In eukaryotes, DNA is wrapped around nucleosomes made of histone proteins, which organize DNA into functional units. The Berger Group studies the origin and function of histones and their regulators, aiming to uncover how and when they evolved to give rise to the complex chromatin that ensures genome integrity and controls genome expression in eukaryotes.

HIGHLIGHT PUBLICATIONS:

Harvey ZH*, Stevens KM, Kok JY, ..., Warnecke T*, Berger F*. (2025) **The histone core domain evolves at single-residue resolution to directly orchestrate transcription.** *Cell Rep.* DOI: 10.1016/j.celrep.2025.116079.

Osakabe A, Jamge B, Axelsson E, ..., Berger F*. (2021) **The chromatin remodeler DDM1 prevents transposon mobility through deposition of histone variant H2A.W.** *Nat Cell Biol.* DOI: 10.1038/s41556-021-00658-1.

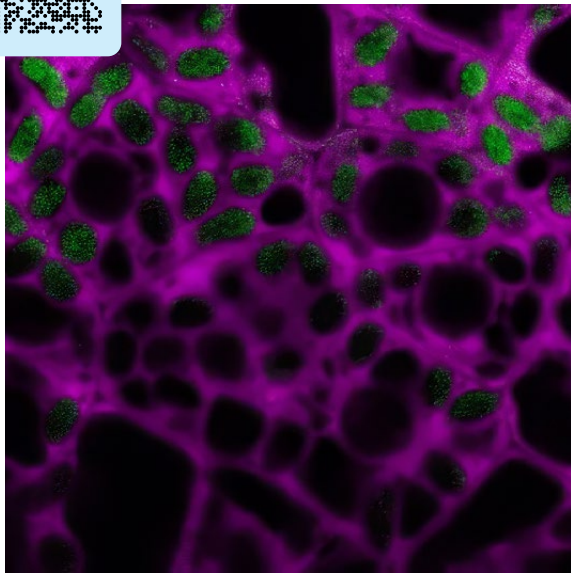
Yelagandula R, Stroud H, Holec S, ..., Jacobsen S*, Berger F*. (2014) **The histone variant H2A.W defines heterochromatin and promotes chromatin condensation in Arabidopsis.** *Cell.* DOI:10.1016/j.cell.2014.06.006.



Yasin DAGDAS

AUTOPHAGY-MEDIATED CELLULAR QUALITY CONTROL MECHANISMS

Research question: *How do plant cells recycle damaged components to stay healthy?*



Autophagy is the cell's cleanup pathway that removes damaged or unneeded components and helps cells cope with stress and stay healthy. The Dagdas Group employs comparative approaches in various plant models to understand the molecular details of cellular recycling, particularly the various pathways by which the cell identifies and removes damaged cellular components during stress.

HIGHLIGHT PUBLICATIONS:

Clavel M*, Bianchi A, Kobylinska R, ..., Dagdas Y*. (2026) **Selective autophagy fine-tunes plant immunity to promote cell survival during viral infection.** *Science.* DOI: 10.1126/science.adu9554.

Sánchez de Medina Hernández V*, Nava-García MM, Bianchi A, ..., Dagdas Y*. (2025) **Cross-species interactome analysis uncovers a conserved selective autophagy mechanism for protein quality control in plants.** *Dev Cell.* DOI: 10.1016/j.devcel.2025.11.001.

Julian J*, Gao P, Del Chiaro A, ..., Dagdas Y*. (2025) **ATG8ylation of vacuolar membrane protects plants against cell wall damage.** *Nat Plants.* DOI: 10.1038/s41477-025-01907-z.



Note: Yasin Dagdas is now Professor of Evolutionary Cell Biology at Heidelberg University.



Liam DOLAN

DEVELOPMENT AND EVOLUTION OF LAND PLANTS

Research question: *How do plants develop complex structures from single cells?*



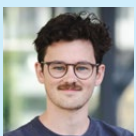
The bodies of land plants are derived from generative centers called meristems located at the tips of branches, which give rise to new branches, leaves, flowers, and other organs. Meristems evolved early in land plant evolution and were present in the last common ancestor of existing land plants, more than 450 million years ago. While much is known about the mechanisms controlling meristem function, we know very little about how they first develop. The Dolan Group aims to discover the mechanisms that control meristem initiation and how this regulation first evolved.

HIGHLIGHT PUBLICATIONS:

Wallner ES*, Edelbacher N, Dolan L*. (2026) **De novo meristem development in *Marchantia polymorpha* requires light and an apical auxin minimum.** *Curr Biol*. DOI: 10.1016/j.cub.2025.11.016.

Spencer V, Casey C, Mosiolek M, ..., Dolan L*. (2025) **The cytochrome P450 enzyme MpCYP78E1 inhibits meristem initiation and activity in *Marchantia polymorpha*.** *Curr Biol*. DOI: 10.1016/j.cub.2025.06.071.

Wallner ES and Dolan L*. (2024) **Reproducibly oriented cell divisions pattern the prothallus to set up dorsoventrality and de novo meristem formation in *Marchantia polymorpha*.** *Curr Biol*. DOI: 10.1016/j.cub.2024.07.099.



Nick IRWIN

HORIZONTAL GENE TRANSFER IN PLANT EVOLUTION

Research question: *How are genes transferred between different species?*



Horizontal gene transfer allows genetic material to move from one species to another. The Irwin Group combines phylogenetic analyses and functional studies to trace horizontal gene transfer events throughout evolutionary history, uncovering how foreign genes are repurposed by other species. Their work reveals how horizontal gene transfer serves as a mechanism for innovation in evolution, enabling species to acquire new functions over short time periods.

HIGHLIGHT PUBLICATIONS:

De la Concepcion JC*, Duverge H, Kim Y, ..., Irwin NAT*, Dagdas Y*. (2025) **Electrostatic changes enabled the diversification of an exocyst subunit via protein complex escape.** *Nat Plants*. DOI: 10.1038/s41477-025-02135-1.

Irwin NAT* and Richards TA. (2024) **Self-assembling viral histones are evolutionary intermediates between archaeal and eukaryotic nucleosomes.** *Nat Microbiol*. DOI: 10.1038/s41564-024-01707-9.

Irwin NAT*, Pittis AA, Richards TA and Keeling PJ. (2022) **Systematic evaluation of horizontal gene transfer between eukaryotes and viruses.** *Nat Microbiol*. DOI: 10.1038/s41564-021-01026-3.



Yan MA

INSECT-INDUCED PLANT GALLS

Research question: *How do insects hijack plant signaling to form galls?*



Some insects can redirect plant development to form specialized structures called galls, which provide shelter and nourishment for the insects, often at the expense of plant health. Although made entirely of plant cells, these galls differ markedly from healthy plant tissues in both form and function, making them a striking example of host manipulation. The Ma Group is developing the first lab insect gall model systems in *Arabidopsis* to study how insects hijack the plant's molecular machinery to trigger gall formation. Their research aims to uncover how gall-forming insects suppress plant defence and reprogram plant development to induce galls.

HIGHLIGHT PUBLICATIONS:

Ma Y*, Şen ZB and Ng HP. (2025) **Plant galls induced by insects: coordinated developmental reprogramming and defence manipulation.** *Curr Opin Plant Biol*. DOI: 10.1016/j.pbi.2025.102757.

Ma Y*, Flückiger I, Nicolet J, ..., Geldner N*. (2024) **Comparisons of two receptor-MAPK pathways in a single cell-type reveal mechanisms of signalling specificity.** *Nat Plants*. DOI: 10.1038/s41477-024-01768-y.

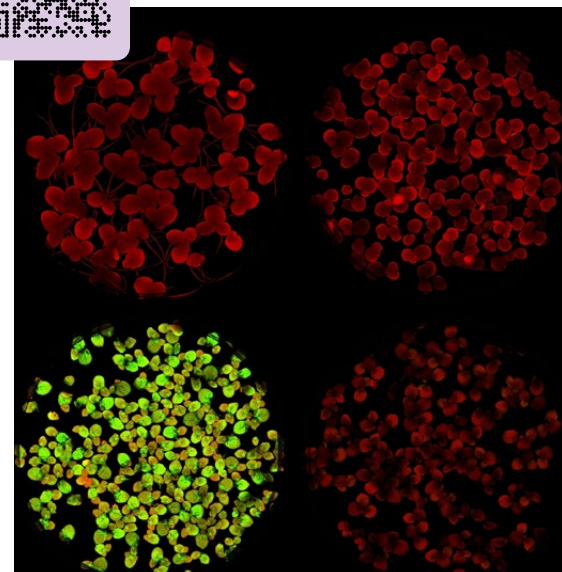
Ma Y* and Nicolet J. (2023) **Specificity models in MAPK cascade signaling.** *FEBS Open Bio*. DOI: 10.1002/2211-5463.13619.



Arturo MARÍ-ORDÓÑEZ

TRANSPOSON SILENCING IN PLANTS

Research question: *How do plants recognize and silence parasitic genetic elements?*



Transposons are selfish genetic elements capable of copying and reinserting themselves at other locations in the genome, posing a threat to genome stability. Keeping transposons in check is crucial to protect the genome from damage. The Marí-Ordóñez Group uses duckweeds and other plant models to uncover the molecular mechanisms that detect and silence transposons, safeguarding the plant's DNA and ensuring genome stability.

HIGHLIGHT PUBLICATIONS:

Barragan-Borrero V, de Santana Lopes A, Rodrigues-Batista ED, ..., Huber M*, Xu S*, Marí-Ordóñez A*. (2026) **Strain, procedures, and tools for reproducible genetic transformation and genome editing of the emerging plant model *Spirodela polyrhiza*.** *New Phytol*. DOI: 10.1111/nph.70919.

Buendia-Avila D, Barragan-Borrero V, Luna-Rodriguez P, ..., Marí-Ordóñez A*. (2026) **Transposon expansion is associated with reorganization of small RNA and DNA methylation landscapes in the morphologically minimal angiosperm *Wolffia brasiliensis*.** *BioRxiv*. DOI: 10.64898/2026.02.27.708460.

Dombey R, Buendia-Avila D, Barragan-Borrero V, ..., Marí-Ordóñez A*. (2025) **Atypical epigenetic and small RNA control of degenerated transposons and their fragments in clonally reproducing *Spirodela polyrhiza*.** *Genome Res*. DOI: 10.1101/gr.279532.124.





Magnus NORDBORG

POPULATION GENETICS AND
GENOME EVOLUTION

Research question: *How do genetic variation and epigenetic modification shape genome evolution?*



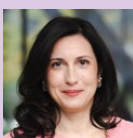
The Nordborg Group works on a variety of fundamental and conceptual questions in population genetics and genome evolution, ranging from the genetic basis of local adaptation to the epidemiology of transposons and their role in shaping genomes. The group combines field work, lab work, and computational work.

HIGHLIGHT PUBLICATIONS:

Igolkina A, Vorbrugg S, Rabanal F, ..., Nordborg M*. (2025) **A comparison of 27 *Arabidopsis thaliana* genomes and the path toward an unbiased characterization of genetic polymorphism.** *Nat Genet.* DOI: 10.1038/s41588-025-02293-0.

Brachi B, Filiault D, Pisupati R, ..., Bergelson J*, Nordborg M*. (2025) **Life-history trade-offs explain local adaptation in *Arabidopsis thaliana*.** *eLife.* DOI: 10.7554/elife.107477.1.

Burns R, Mandakova T, Gunis J, ..., Novikova PY*, Nordborg M*. (2021) **Gradual evolution of allopolyploidy in *Arabidopsis suecica*.** *Nat Ecol Evol.* DOI: 10.1038/s41559-021-01525-w.



Silvia RAMUNDO

CHLOROPLAST BIOGENESIS
AND QUALITY CONTROL

Research question: *How are chloroplasts made and maintained?*



Chloroplasts are vital organelles in plants and algae, uniquely capable of harnessing sunlight to capture carbon dioxide and convert it to sugars while releasing oxygen. Beyond their role in photosynthesis, chloroplasts also produce many other essential metabolites, including amino acids and hormone precursors that regulate plant development and stress responses. The Ramundo Group uses the model alga *Chlamydomonas reinhardtii* to study how chloroplasts are made and how their integrity is maintained. Through their research, they aim to advance our understanding of how chloroplasts contribute to plant resilience and adaptation in a changing environment.

HIGHLIGHT PUBLICATIONS:

Vetrano P, Krall K, Martinez L, ..., Ramundo S*. (2026) **VIA1 is a conserved regulator of thylakoid membrane integrity that acts through VIPP1.** *BioRxiv.* DOI: 10.64898/2026.03.26.714412.

Ramundo S, Asakura Y, Salome PA, ..., Rochaix J-D*, Walter P*. (2020) **Coexpressed subunits of dual genetic origin define a conserved super-complex mediating essential protein import into chloroplasts.** *Proc Natl Acad Sci USA.* DOI: 10.1073/pnas.2014294117.

Perla K, Toutkoushian H, Boone M, ..., Walter P*, Ramundo S*. (2019) **The MARS1 kinase confers photoprotection through signaling in the chloroplast unfolded protein response.** *eLife.* DOI: 10.7554/eLife.49577.



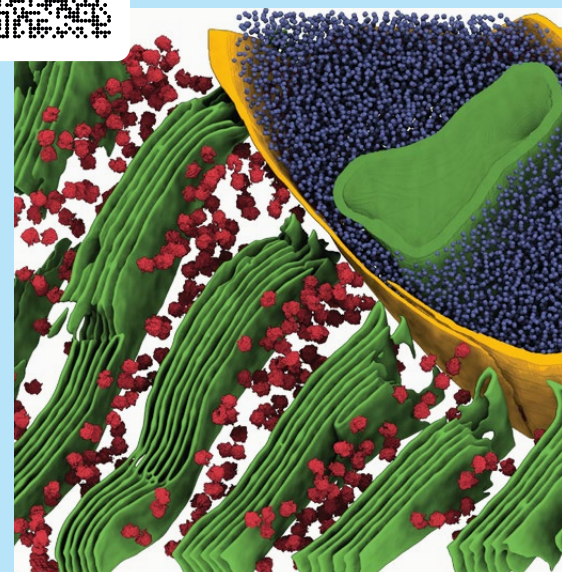
Two New Resarch Groups in 2026



Manon DEMULDER

ARCHITECTURE AND DYNAMICS
OF ALGAL CARBON FIXATION

Research question: *How do algae build, maintain, and inherit their carbon-fixing machinery?*



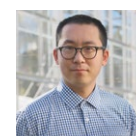
Photosynthetic microorganisms drive a large fraction of global carbon fixation. In algae, CO₂ fixation occurs in the pyrenoid, a phase-separated compartment within the chloroplast that concentrates Rubisco. The Demulder Group investigates how this organelle is built, maintained, and remodeled under changing conditions. By combining cryo-electron tomography and environmental sampling, their research aims to link molecular structure with function in laboratory and natural systems.

HIGHLIGHT PUBLICATIONS:

Shimakawa G#, Demulder M#, Flori S#, ..., Engel BD*, Matsude Y*. (2024) **Diatom pyrenoids are encased in a protein shell that enables efficient CO₂-fixation.** *Cell.* DOI: 10.1016/j.cell.2024.09.013.

Nam O, Musial S, Demulder M, ..., Engel BD*, Mackinder LCM*. (2024) **A protein blueprint of the diatom CO₂-fixing organelle.** *Cell.* DOI: 10.1016/j.cell.2024.09.025.

Wei P, Demulder M, ..., De Veylder L*. (2020) ***Arabidopsis* casein kinase 2 controls AI toxicity and phosphate deficiency through control of the DNA damage response.** *Plant Cell.* DOI: 10.1093/plcell/koab005.



Jia HE

EVOLUTION OF
MORPHOLOGICAL NOVELTY

Research question: *How do new structures arise, and why do similar innovations evolve repeatedly?*



Floral innovations provide a powerful window into how morphological novelties arise. One spectacular but understudied example is the so-called “Chinese lantern,” or Inflated Calyx Syndrome (ICS), which arose independently in multiple angiosperm families but is best known in *Physalis* (groundcherry). The He Group uses *Physalis* as a new model to study how organisms coordinate rapid and precise morphogenesis at the molecular level, and the evolutionary mechanisms underlying the repeated emergence of such novelties.

HIGHLIGHT PUBLICATIONS:

He J, Van Eck J and Lippman ZB*. (2024) **Blooming balloons: Searching for mechanisms of the inflated calyx.** *Curr Opin Plant Biol.* DOI: 10.1016/j.pbi.2024.102595.

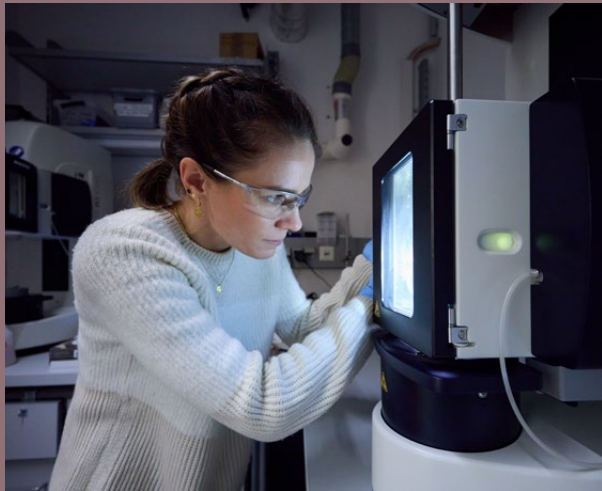
Satterlee JW, Alonso D, Gramazio P, Jenike KM, He J, ..., Lippman ZB*. (2024) **Convergent evolution of plant prickles by repeated gene co-option over deep time.** *Science.* DOI: 10.1126/science.ado1663.

He J, Alonge M, Ramakrishnan S, ..., Lippman ZB*. (2023) **Establishing *Physalis* as a Solanaceae model system enables genetic reevaluation of the inflated calyx syndrome.** *Plant Cell.* DOI: 10.1093/plcell/koac305.

* Corresponding author(s) | # Authors contributed equally

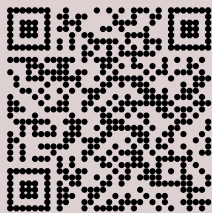
SCIENTIFIC SUPPORT ENABLES RESEARCH EXCELLENCE

Scientific facilities at the Vienna BioCenter provide researchers with access to advanced technologies and expert support. At the GMI, scientists benefit from shared on-campus core facilities in collaboration with IMBA and IMP, as well as from the Vienna BioCenter Core Facilities (VBCF) GmbH, which are also accessible to external users. Together, these facilities form the backbone of a dynamic and innovative research environment. Their highly skilled staff offers expertise in experimental design, advanced instrumentation, and data analysis, enabling researchers to rapidly explore new questions and adopt emerging technologies.



CORE FACILITIES

- BioOptics
- Molecular Biology Services
- Molecular Tool Development
- Peptide Synthesis
- Proteomics Facility
- Proteomics Tech Hub



VIENNA BIOCENTER CORE FACILITIES

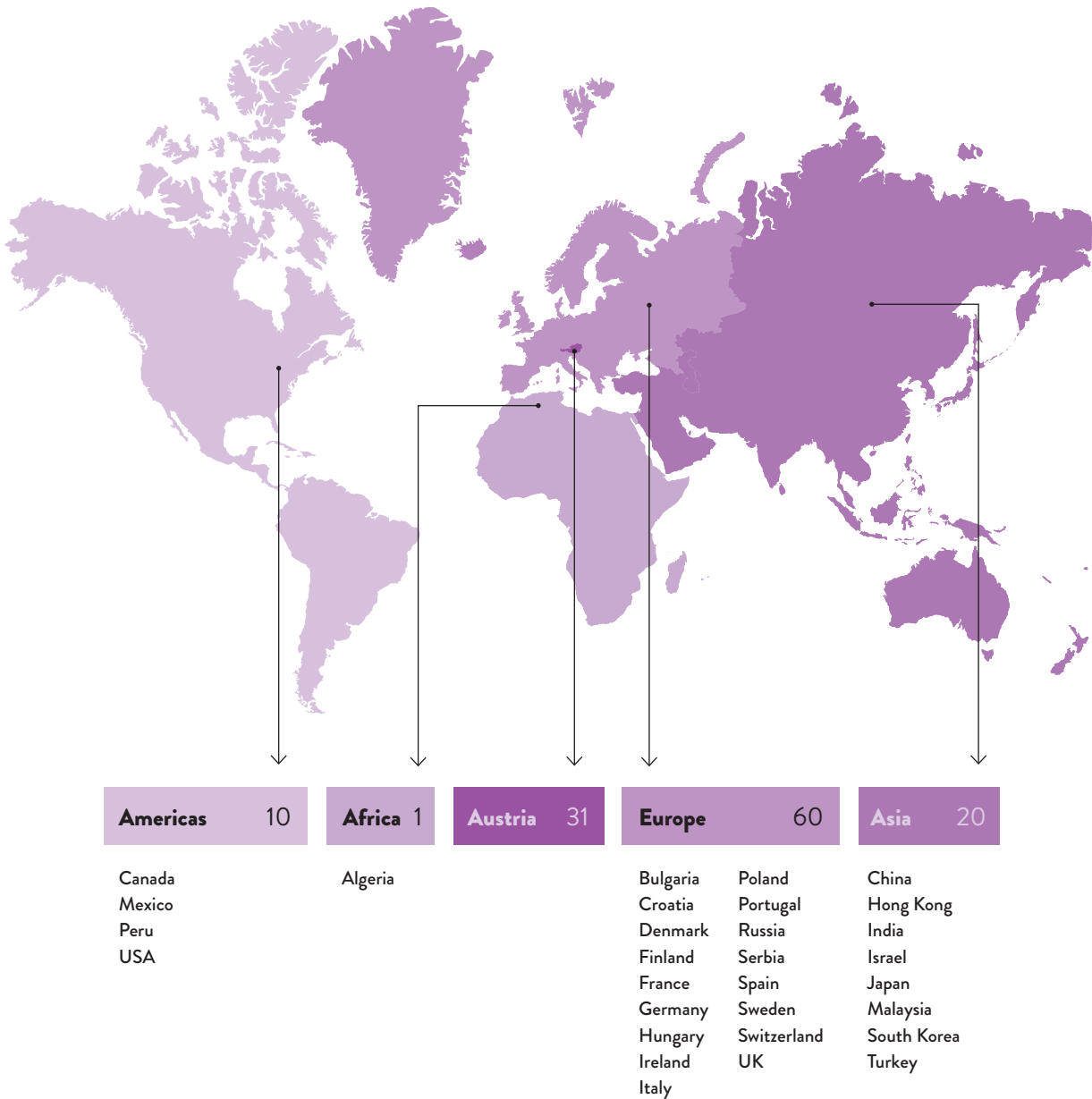
- Austrian Bioimaging/CMI
- Child Care Center
- Computational Biology Training
- Electron Microscopy
- Histology
- Metabolomics
- Next Generation Sequencing
- Plant Sciences
- Preclinical Phenotyping
- Protein Technologies
- Strategic Information Management
- Vienna Drosophila Resource Center (VDRC)



THE GMI AT A GLANCE IN 2025

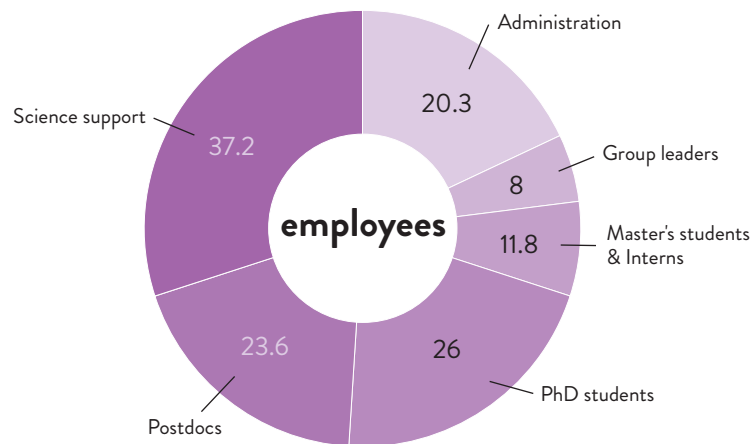
Staff by nationality

122 employees in total



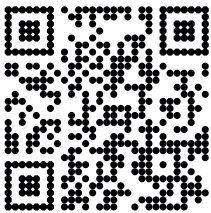
Staff by function

2025 yearly average: 126.9 employees



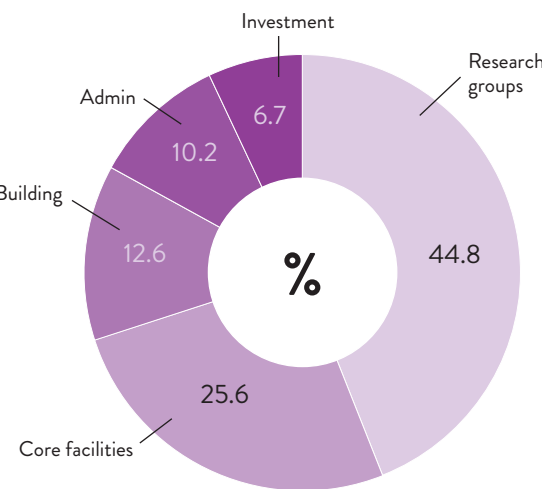
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papers and preprints



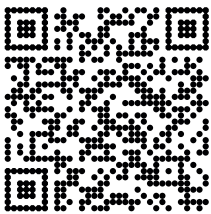
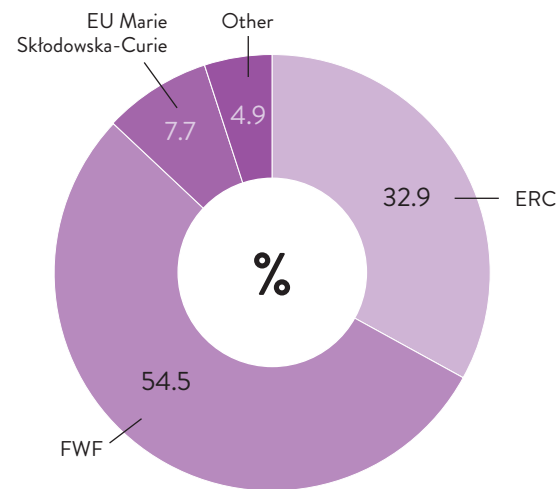
Expenditures

Percentage of total financial volume



Research grants

Percentage of total financial volume of grants



EMPOWERING RESEARCH: GMI'S INTEGRATED SUPPORT INFRASTRUCTURE



Researchers at the GMI are supported by dedicated administrative and infrastructure staff who ensure smooth day-to-day operations. To increase synergies, administrative staff are shared between the GMI and IMBA, while the infrastructure team promotes resource sharing across the GMI, IMBA, and IMP. This collaborative approach enables efficient use of resources and fosters a cooperative environment.



ADMINISTRATION

- Accounting
- Assistant & Special Projects
- Cafeteria
- Communication & Public Outreach
- Controlling & Grants Management
- Human Resources
- Project Management Office
- Technology Transfer Office

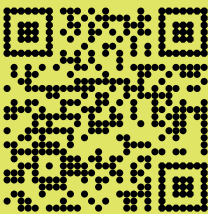
INFRASTRUCTURE

- Environment, Health & Safety
- Facility Management
- Information Technology & High-Performance Computing (CLIP)
- Lab Support
- Max Perutz Library
- Mechanical Engineering Center
- Media Preparation Lab
- Purchasing & Store
- Reception
- Sterile Processing Department

CULTIVATING SCIENTIFIC EXCELLENCE: EDUCATION AND TRAINING

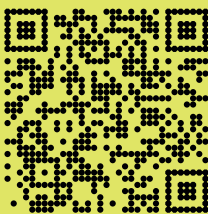
Education is central to the GMI’s mission. In partnership with the Vienna BioCenter Scientific Training Unit, the GMI provides structured programs that empower researchers at every career stage.

Doctoral Level: World-Class PhD Training



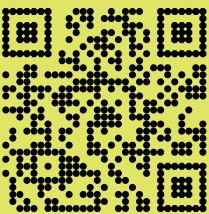
The **Vienna BioCenter PhD Program** is one of Europe’s leading life science training initiatives. Operated jointly by the University of Vienna and the Medical University of Vienna – in collaboration with the GMI, IMBA, IMP, and Max Perutz Labs – it offers interdisciplinary exchange and access to state-of-the-art resources.

Postdoctoral Level: Advanced Research Fellowships



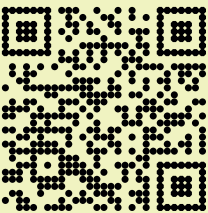
Through the **Vienna International Postdoctoral (VIP³) Fellowship Program**, the GMI supports early-career scientists in developing independent research programs together with the other institutes of the Vienna BioCenter. These three-year fellowships feature a three-mentor model and exposure to diverse professional sectors. The VIP³ program receives funding from the European Union’s Horizon Europe Research and Innovation Program under the Marie Skłodowska-Curie grant agreement No. 101217025.

Undergraduate Level: First Research Experience



The **Vienna BioCenter Summer School** offers undergraduate students hands-on laboratory experience. This program serves as a premier entry point into international research environments.

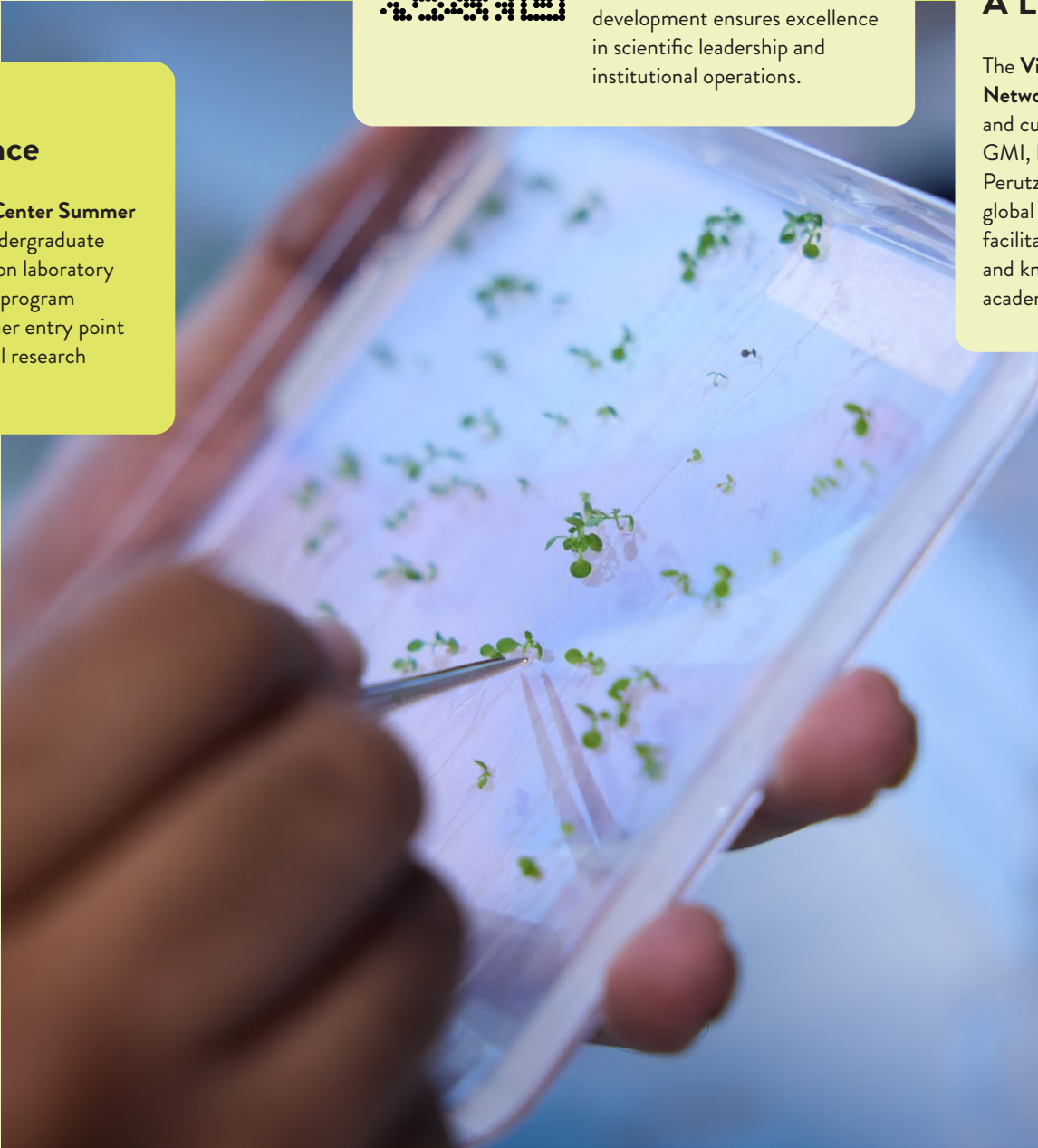
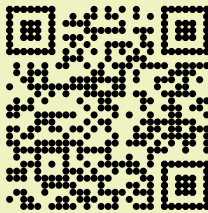
Leadership Development: Empowering Future Leaders



The **Vienna BioCenter Leadership Program** strengthens the management skills of group and team leaders across research, administration, and infrastructure. This structured development ensures excellence in scientific leadership and institutional operations.

Alumni Network: A Lifelong Scientific Community

The **Vienna BioCenter Alumni Network** connects former and current members of the GMI, IMBA, IMP, and Max Perutz Labs. By fostering a global community of experts, it facilitates ongoing collaboration and knowledge exchange across academia and industry.



STRIVING FOR EXCELLENCE

Research at the GMI is evaluated annually by a Scientific Advisory Board (SAB), consisting of international experts. Their primary role is to advise the institute’s management and the Austrian Academy of Sciences on the quality of the research conducted at the GMI. Over a three-day period, the SAB meets with GMI scientists for in-depth discussions with all research groups, as well as representatives of post-docs, PhD students, and technical staff.



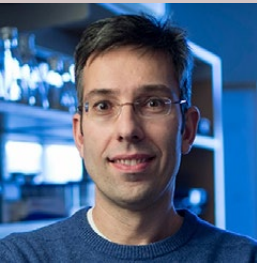
GWYNETH INGRAM
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HARMIT MALIK
Division of Basic Sciences, Fred Hutchinson Cancer Center, Seattle, US



KRISHNA NIYOGI
Department of Plant and Microbial Biology, University of California, Berkeley, US



ANTONIS ROKAS
Department of Biological Sciences, Vanderbilt University, Nashville, US



NICK TALBOT
The Sainsbury Laboratory, Norwich, UK



MILTOS TSANTIS
Department of Comparative Development and Genetics, Max Planck Institute for Plant Breeding Research, Cologne, DE



DOLF WEIJERS
Biochemistry, Wageningen University & Research, Wageningen, NL

A VISUAL GUIDE TO GMI’S RESEARCH MODELS

In this report, some of the GMI’s model organisms are reimagined as stylized icons arranged in a mandala-like composition.

By placing our model organisms center stage, we want to show the interconnected research that defines the GMI:

WHERE KNOWLEDGE GROWS



	ARABIDOPSIS: <i>Arabidopsis thaliana</i> is a core flowering-plant model used across topics like chromatin regulation, autophagy, transposon silencing, and insect-induced gall formation. It is also used in comparative genomics to connect genetic variation to phenotype in plants.		CHLAMYDOMONAS: <i>Chlamydomonas reinhardtii</i> is used as a fast, tractable, single-celled green alga model to study fundamental processes such as photosynthesis and cellular responses to environmental stresses (e.g., light and heat). It is also one of the two complementary organisms used to dissect chloroplast biogenesis and chloroplast stress signaling alongside Arabidopsis.
	CHLOROPLAST: Chloroplasts are specialized organelles found in the cells of plants and some algae. They are used as systems for understanding chloroplast biogenesis, protein quality control, and chloroplast-to-nucleus signaling (including the chloroplast unfolded protein response).		DIATOMS*: The unicellular photosynthetic microorganism <i>Phaeodactylum tricornutum</i> is used as a model to study photosynthetic CO₂ fixation. By investigating the pyrenoid, a specialized chloroplast compartment that concentrates Rubisco, researchers can understand how organisms build, maintain, and alter carbon fixation under changing environmental conditions. * Coming to the GMI in 2026
	DUCKWEED: Duckweed species (e.g., <i>Lemna minor</i>, <i>Spirodela polyrhiza</i>) are used as aquatic plant models that are easy to manipulate and useful for biochemical experiments, as duckweeds can take up chemicals directly from water. They are also specifically used to study gene silencing, leveraging their distinctive small-RNA and epigenetic features.		MARCHANTIA: <i>Marchantia polymorpha</i> is used to probe how key cellular, developmental, and physiological traits evolved during the transition of plants from water to land. Researchers at the GMI use it to investigate mechanisms including selective autophagy regulation, cell polarity during early development, and horizontal gene transfer in plant evolution.
	PHYSALIS*: Physalis (groundcherry) is an emerging model used to study the evolution of morphological novelty, specifically the “Chinese lantern” or Inflated Calyx Syndrome (ICS). Its short generation time, distinctive fruiting morphology, and growing genomic resources make it a tractable system to investigate the molecular and evolutionary mechanisms of morphogenesis. * Coming to the GMI in 2026		SWEDE MIDGE: At the GMI, the swede midge (<i>Contarinia nasturtii</i>) is used together with Arabidopsis to build an insect–plant interaction model for studying insect-induced gall formation. The goal is to identify which plant molecular pathways the insect hijacks to trigger the formation of plant galls that protect and feed larvae.

Legend of the stylized model organism icons from the cover page.
Icon design adapted from Izabela Kaminski.

Impressum

Published by:
Gregor Mendel Institute of Molecular Plant Biology GmbH
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1030 Vienna, Austria
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Photocredits:
ATP Architekten, Verónica Barragán-Borrero, Adam Cooper, Manon Demulder, Peter Duchek, Jia He, Johannes Hloch, Fred Hutchinson Cancer Center, Tal Dahan, Nick Irwin, Yan Ma, Johannes Rötzer, Víctor Sánchez de Medina Hernández, Vikas Shukla, Anna Stöcher

Front page:
Researchers at the GMI investigate fundamental questions in biology using a diverse range of model organisms. In this 2025 research report, these organisms are reimagined as stylized icons arranged in a mandala-like composition. By placing our model organisms center stage, we want to show the interconnected research that defines the GMI: Where Knowledge Grows.

GMI logo: Lo Breier
Graphic concept & design: The Gentlemen Creatives
Printing house: Riedel Druck GmbH, 2214 Auersthal

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The GMI is a basic research institute of the Austrian Academy of Sciences.





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