

**CALL FOR PROJECT SUBMISSIONS FOR MASTER STUDENTS OF ZHDK**

for

**artists-in-labs Master Series Residencies in the  
Spring Semester 2025**

**as part of the Minor**

***Transformations Arts Sciences***

In the spring semester 2025, the artists-in-labs program (AIL) offers four residencies at the intersection of art and science in cooperation with the Master Transdisciplinary Studies (MTR). The residencies are situated in research institutes in the Zurich area.

**Interested MA students of all departments of ZHDK may apply with a project idea in the context of these research fields:**

- **Material Science**
- **Biology (Phytopathology)**
- **Environmental Systems Science (Biochemistry and Pollutant Dynamics)**
- **Artificial Intelligence (Interactive Visualization and Intelligence Augmentation)**

**Applications for these residencies are open for:**

Master's students from all ZHDK departments and specializations

The following conditions apply:

- For Master's students starting their studies in the new major-minor study model in the fall semester 2024: the Master Series residency is an integral part of the minor in *Transformations Arts Sciences*; enrolment in the minor must be completed by **10 May 2024** at the latest.
- For Master's students who are already studying at the ZHDK (studying in the old study model): ECTS credits will be credited in consultation with the responsible head of degree program or specialization.

**Duration of the Residencies: January and February 2025**

**APPLICATION DEADLINE: 29 April 2024**

**PLEASE SEND YOUR APPLICATIONS INCL. PORTFOLIO IN ONE PDF-FILE (MAX. 8 MB) TO:**  
**ail.program@zhdk.ch** (if the PDF is larger than 8 MB, include a [wetransfer.com](https://www.wetransfer.com) – download-link in your e-mail). Video files only as online links (vimeo.com, youtube.com etc.).

The application may be written in German or English.

If your application is shortlisted, we will invite you to a preliminary interview.  
The preliminary interviews will take place on **May 3**. In exceptional cases, an appointment can be arranged for the following week (week 19).

If you have any questions, you are welcome to contact the AIL-team via [ail.program@zhdk.ch](mailto:ail.program@zhdk.ch)

## **BACKGROUND**

The artists-in-labs residencies *Master Series 2025* offer the unique opportunity to a total of four MA-students of ZHdK to exchange and work during 2 months in January and February 2025 with researchers active in the fields of **Material Science**, **Biology (Phytopathology)**, **Environmental Systems Science (Biochemistry and Pollutant Dynamics)** and **Artificial Intelligence (Interactive Visualization and Intelligence Augmentation)** and to develop an artistic project. All residencies will be in the Zurich area.

### **About the residency:**

- The residency's unique setting opens up the possibility for a transdisciplinary dialogue that is brought about by juxtaposing concepts and procedures, cultural knowledge and backgrounds
- The residency offers the student significant time and space to develop a project and to critically reflect as well as to explore a range of scientific topics, methods and technologies
- During the residency the student will be immersed in the research and developing his/her project alongside scientists of the team
- It will be possible to further develop the project into the master thesis in consultation with the head of the Master degree programme or the director of specialisation
- There will also be a coordinator at each research group available to the artist for more general issues
- Mentoring will be provided by the project management (AIL/MTR/Minor Transformations Arts Sciences) to reflect and facilitate the process.

### **RESIDENCY 1: Material science**

Material science brings together chemistry, physics, and engineering. This specialist area deals with the development and research of materials of all kinds. The technologies and experimental procedures are an important part of the research.

Chemical, physical and sometimes biological factors determine the properties of a material. Whether transparent or reflective, heavy, or light, durable, or decomposable, conductive, or insulating: the composition and structure of the material are decisive. These properties in turn have an influence on its processing and therefore on its use in everyday life. Materials are rarely end products; rather, they take on different tasks as part of a complex system. The analysis and simulation of materials and processes from the atom to the finished component also play an important role here (source: ETH).

### **RESIDENCY 2: Biology (Phytopathology)**

In phytopathology, native and exotic pathogens of forest and ornamental trees and shrubs are researched in changing environments.

The research pursues the following goals, among others: To understand the biology of pathogen populations at different spatial and temporal scales. To develop and improve methods to control fungal diseases, with particular emphasis on biological control with parasitic viruses. To identify potentially invasive pathogens and the threats they can cause in a new ecosystem. To develop and apply modern diagnostic methods for tree pests and pathogens. To lay the foundations for supporting the federal and cantonal authorities in the prevention and containment of quarantine pathogens (source: WSL).

### **RESIDENCY 3: Environmental Systems Science (Biochemistry and Pollutant Dynamics)**

Biogeochemistry and Pollutant Dynamics research is concerned with understanding biogeochemical cycles and processes in natural and man-made environments and understanding potential responses to human activities and global change.

The field contributes to addressing current societal challenges and to the interdisciplinary, rapidly evolving scientific and technological landscape. Research is conducted on oceans, soils, and inland waters. Some of the current scientific focus areas utilize novel photochemical degradation processes, investigate selenium deposition over climatic time scales, explore microbial life in the deep sea, quantify components of the Earth's carbon cycle and the impact of climate change on the biogeochemical function of the oceans (source: ETH).

### **RESIDENCY 4: Artificial Intelligence (Interactive Visualization and Intelligence Augmentation)**

In research on artificial intelligence, among others the interface between data analysis, visualization, computational linguistics, and explainable artificial intelligence is investigated.

Data mining and machine learning techniques are combined with visual analysis, especially for text data. Interactive, mixed-initiative machine learning promises to combine the efficiency of automation with the effectiveness of humans for a collaborative decision-making and problem-solving process. This can be facilitated by co-adaptive visual interfaces. Data characteristics such as high-dimensional, geospatial, relational, temporal, and textual data is investigated. To enable explainable machine learning with the tasks of understanding, diagnosing and refining machine learning models, interaction techniques and explanation strategies are discussed (source: ETH).

## **Project management ZHdK**

The *Master Series 2025* residencies are curated and supervised by **the artists-in-labs program in cooperation with the Master Transdisciplinary Studies/Minor Transformations Arts Sciences.**

### **About the artists-in-labs program**

- Since 2003, the artists-in-labs program (AIL) has been facilitating artistic research by way of long-term residencies for 62 artists in 22 scientific laboratories and research institutes in Switzerland and worldwide (as of 2023)
- It is part of the Zurich University of the Arts (ZHdK) and promotes sustainable transdisciplinary and cross-border collaborations as well as the development of new knowledge by providing artists with an opportunity to critically engage with the sciences and their experimental and aesthetic dimensions
- This includes explorations of the site of the laboratory, as well as a range of scientific topics, methods and technologies. Publications and short documentary films record the processes and results of these collaborations and offer reflections on them
- All the collaborations the AIL produces are presented at various national and international exhibitions, symposia and workshops, making it possible to share findings and ideas, and to provide accessible discussions and aesthetic experiences to our students, peers and to the public.
- Since AIL's beginning the integration of its projects into the ZHdK and at the same time the integration of the ZHdK into its projects has been an important part of the work of the artists-in-labs program: Artists present their projects at the university or invite students to visit the labs, students take part in exhibitions, debate with the artists in seminars or develop ideas in workshops.

[www.artistsinlabs.ch/en](http://www.artistsinlabs.ch/en) / [vimeo](https://www.vimeo.com/artistsinlabs) / [instagram](https://www.instagram.com/artistsinlabs) / [facebook](https://www.facebook.com/artistsinlabs)

### **About the Master Transdisciplinary Studies:**

1. Since 2007, the Master Transdisciplinary Studies (MTR) has been offering students with an artistic, creative and/or academic practice the opportunity to analyse and utilize the potential of artistic and aesthetic strategies for their own interests and planned projects.
2. The programme acts as a hinge between different disciplines in art and design, science and society.
3. It enables students to position themselves in cooperative constellations, to encounter different questions and problems critically and reflectively, and to develop new methods and formats for dealing with them that go beyond disciplinary constrictions.
4. The profile of the programme is based on the teaching and research focus of the ZHdK, the competence profiles and work perspectives of the students as well as the possible connections in the professional field.

[mtr.zhdk.ch](http://mtr.zhdk.ch)