

NanoARTS – Art meets Nanoscience

CALL FOR PROPOSALS

A joint initiative of the Swiss Arts Council Pro Helvetia and the Adolphe Merkle Institute (AMI)

Deadline for application to the matchmaking event: **3 February 2022**, 5 p.m. (CET)

Deadline for submission of tandem proposal: **31 March 2022**, 5 p.m. (CET)

The **Swiss Arts Council Pro Helvetia** and the **Adolphe Merkle Institute (AMI)** are looking for artists and scientists who are interested in collaborating, with the aim of stimulating exchanges between art, science and technology. The **NanoARTS** programme creates a space for new artistic approaches and explorative research practices by selecting and accompanying up to three tandems within a process of transdisciplinary and multi-perspective collaboration.

We welcome joint applications from artists who wish to explore one of the areas of nanoscience described below in order to enrich their practice together with scientists from AMI who are looking to engage in transdisciplinary research practice.

NANOSCIENCE AT THE ADOLPHE MERKLE INSTITUTE

The AMI strives to be a leader in fundamental and application-oriented interdisciplinary research on nanoscience, the infinitely small. The research at AMI combines fundamental and application-oriented aspects in a multidisciplinary setting.

For this pilot project, artists are invited to apply jointly with a scientist from AMI working on one of the following themes:

See the Touch: Polymer Chemistry and Materials

Biological processes such as cell-cell contacts, cell motility, or even haptic perception (touch) all rely on the conversion of mechanical stimuli into chemical energy. Building on this expertise of mechano-responsive polymers, new artistic research approaches can be envisioned. Polymers with unusual and previously unavailable functions, for example mechanical morphing, mechanically induced light generation, mechanically controlled cell growth, self-lubricating behavior, and the ability to release small molecules such as drugs, fragrances, and antiseptics, are to be incorporated into artistic processes. Learn more about polymer chemistry and materials [here](#).

Controlling Anatomies: Soft Matter Physics

The aim is to understand and reproduce structured materials found in nature as well as create nanomaterials with unusual properties and boost novel energy technologies such as solar cells, electrochromic displays, supercapacitors, and so on. To fully understand the optical properties of fauna and flora and relate them to their ultrastructural anatomy, a holistic spectroscopic characterization is required. Such an investigation allows to decipher the various components of tissues that contribute to optical responses. Learn more about soft matter physics [here](#).

In Vivo Technology: BioPhysics

The goal is to contribute to the molecular understanding of physical diseases, developing sensitive diagnostic assays and sensors, as well as characterizing individual protein molecules for applications in biomarker detection, routine protein analysis, personalized medicine, and proteomics. The research group is interested in engaging in artistic discourse related to advances in integrating technologies into living organisms, which requires electrical energy sources that are biocompatible, mechanically flexible, and can utilize the chemical energy present in biological systems. Learn more about BioPhysics [here](#).

Interactive Biology: BioNanomaterials

This research group explores fundamental interactions of nanomaterials with their environments, including cells and tissues, consumer products, and food. By developing robust materials and novel analytical methods, this research group determines essential material qualities that are pertinent at the nanoscale, which are relevant for hazard assessment and for biomedical applications, for instance, when bioprinting tissue. Part of the research is the development of a reproducible human omentum model using 3D bioprinting technology that enables spatially controlled deposition of cells and biomaterials in an automated process. Learn more about BioNanomaterials [here](#).

THE PROGRAMME

The **NanoARTS** programme will support up to three transdisciplinary tandems consisting of an artist (or artist collective) and a scientist (or lab group) over a period of twelve to eighteen months. The tandems will meet on a regular basis at various locations (AMI laboratories, studios, scientific and artistic events and gatherings, etc.) and collaborate in a way which is meaningful for both the artists' and the scientists' practice and thinking patterns.

The selected tandems will be accompanied and coached by Sonja Schachinger, expert in art-science mediation. Workshops, common activities, and tailored coaching will frame the exchange between artists and nano-scientists. Two renowned art-science experts, Prof. Dr. Ingeborg Reichle and Dr. Claudia Schnugg, will also be part of the NanoARTS programme and support the tandems.

Furthermore, the team of experts will be present during the production process and dissemination of the potential artistic outcome, providing experience as well as targeted networking.

FUNDING

NanoARTS grants each tandem the following support:

- **Up to 9'000 CHF** compensation of living expenses (artist only).

Compensation will be paid to the artist for every day dedicated to the activities of the tandem, on a self-defined per diem basis (minimum 25 days). The artist can claim this support under the condition that she/he is self-employed while working within the framework of the tandem.

- **Up to a 10% workload** (scientists only)

Equivalent of 45 days dedicated to the transdisciplinary exchange during his or her working time, covered by AMI.

- **Up to 5'000 CHF** to support the operational costs of the tandem (artist and scientist).

This includes the transport costs of the tandem partners, or the purchase of materials needed.

- **Up to 25'000 CHF** production grant (artist only)

The exact sum of the funding will be defined in proportion to the project and requires prior approval by both Pro Helvetia and AMI.

STEP ONE: MEET YOUR TANDEM PARTNER

Artists and scientists interested in the proposed collaboration format are invited to participate in a matchmaking event, in order to meet potential tandem partners. **If the sanitary situation permits, the event will take place on 17 February 2022 from 2 p.m. – 5 p.m. at the Adolphe Merkle Institute in Fribourg. If not, it will be replaced by an online format.**

Participating in the matchmaking event is a mandatory first step to take part in the NanoARTS programme. Due to limited number of participants, this will be a selective process.

[Registration form for scientists](#)

[Application form for artists](#)

Deadline: 3 February 2022.

STEP TWO: SUBMIT YOUR APPLICATION

Together with your tandem partner, propose a collaborative process, defining format, objectives, and motivation. The proposal must engage with issues and topics linked to the Adolphe Merkle Institute as described above.

Deadline: 31 March 2022.

Scientists must meet the following criteria:

- Employed at AMI
- PhD student level and above
- Applicants should be fluent in English

Artists must meet the following criteria:

- Convincing track record of professional artistic practice
- Holding Swiss citizenship or active in the Swiss art scene
- Active in any of the disciplines supported by Pro Helvetia (Design, Interactive Media, Literature, Music, Performing Arts, Visual Arts)
- Applicants should be fluent in English

Tandems develop joint proposals for the collaboration. Proposals must be written in English and submitted via the [online application tool](#). A full application consists of the following:

- Artistic portfolio and CV
- CV and publication list of the scientist
- Proposal for collaborative process (video, project documents, etc.). See [application form](#) for the collaboration proposal.

EXPECTATIONS

Selected tandems of the NanoARTS programme will be expected to:

- Schedule meeting times for regular exchanges with their respective tandem partners;
- Participate in three NanoARTS workshops organised by Pro Helvetia and AMI;
- Submit a record of the collaboration (writing, video, audio, visuals) as well as a brief report;

Selected artists will further be expected to:

- Propose an artistic outcome or prototype in line with the production grant (max. CHF 25'000)

EVALUATION

Eligible proposals submitted by the deadline will be evaluated by an international jury of distinguished experts jointly appointed by the AMI and Pro Helvetia.

We understand that interdisciplinarity in science is not new – however, the integration of the arts and the humanities into the sciences (STEAM approach) is still key when it comes to forming and developing innovative teams.

The tandem proposals will be evaluated according to the following criteria:

- Aesthetics, originality, and innovative character of the proposed concept
- Definition of the artistic research approach at the interface of art and science
- Clear link to one of the research topics of AMI
- Quality and potential of the collaboration

COVID-19

We are committed to minimising the spread of COVID-19 and thus will put in place health and safety measures. Individual adjustments will be made whenever necessary.

CONTACT

- For scientists: Sofia Martin Caba (sofia.martincaba@unifr.ch)
- For artists: Ariane Rippstein (arippstein@prohelvetia.ch)