

ORCHID: Organ-on-Chip In Development

Joining forces for the future in Europe

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The Organ-on-Chip (OoC) consortium hDMT and the LUMC in the Netherlands are now leading an EU initiative that is establishing a European infrastructure to enable coordinated development, production and implementation of OoCs by a consortium of academic and private partners. Seven leading European research institutions are involved.

The OoC consortium hDMT is a pre-competitive, non-profit, technological research institute with renowned scientists from 15 public and private research organizations. In this consortium the hDMT researchers collaborate, share and integrate their knowledge, expertise and research facilities to develop OoCs using human stem cells.

The aim of ORCHID is to accelerate the societal and economic impact of OoC technology through coordinated action. This technology is already providing new platforms for drug discovery but is poised to deliver applications in personalized medicine and safety pharmacology, and offers alternatives to conventional animal testing.

ORCHID is facilitating dialogue and documentation towards accelerating the development of prototypes of OoCs, validated cell systems that mimic diseased or healthy human tissue, and implementation of this technology by a broad group of potential users in science, health care and industry.

ORCHID is building an infrastructure for scientists, policy makers, funders and end-users to join the decision-making processes that will direct future European developments in OoC applications. In addition, ORCHID is establishing a digital platform enabling knowledge sharing between researchers and representatives of private corporations including insurance companies, pharmaceutical and biotech companies, food industry, health foundations and patient organizations.

The ORCHID platform is providing overviews and updates of current and new OoC initiatives so that users can track progress easily, consult developers directly and identify gaps in present knowledge. ORCHID is also addressing ethical and regulatory issues, particularly concerning personalized information, economic and societal impact, training of researchers, and the design of an R&D 'roadmap'.

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Goals

- **Create a roadmap** for Organ-on-Chip technology
- **Build a network** (academia, industry, regulatory bodies, patient organizations)
- **Raise awareness** by dissemination and communication

Objectives

- **Evaluation of the technology and unmet needs**
- **Identification of ethical issues, establishing standards and identifying measures for regulatory implementation**
- **Raising awareness and building the ecosystem** (digital reference platform for Organ-on-Chip)
- **Analysis of economic and societal impact, training and education**
- **Developing a roadmap** (guide for R&D)

ORCHID Research Consortium



hDMT consortium

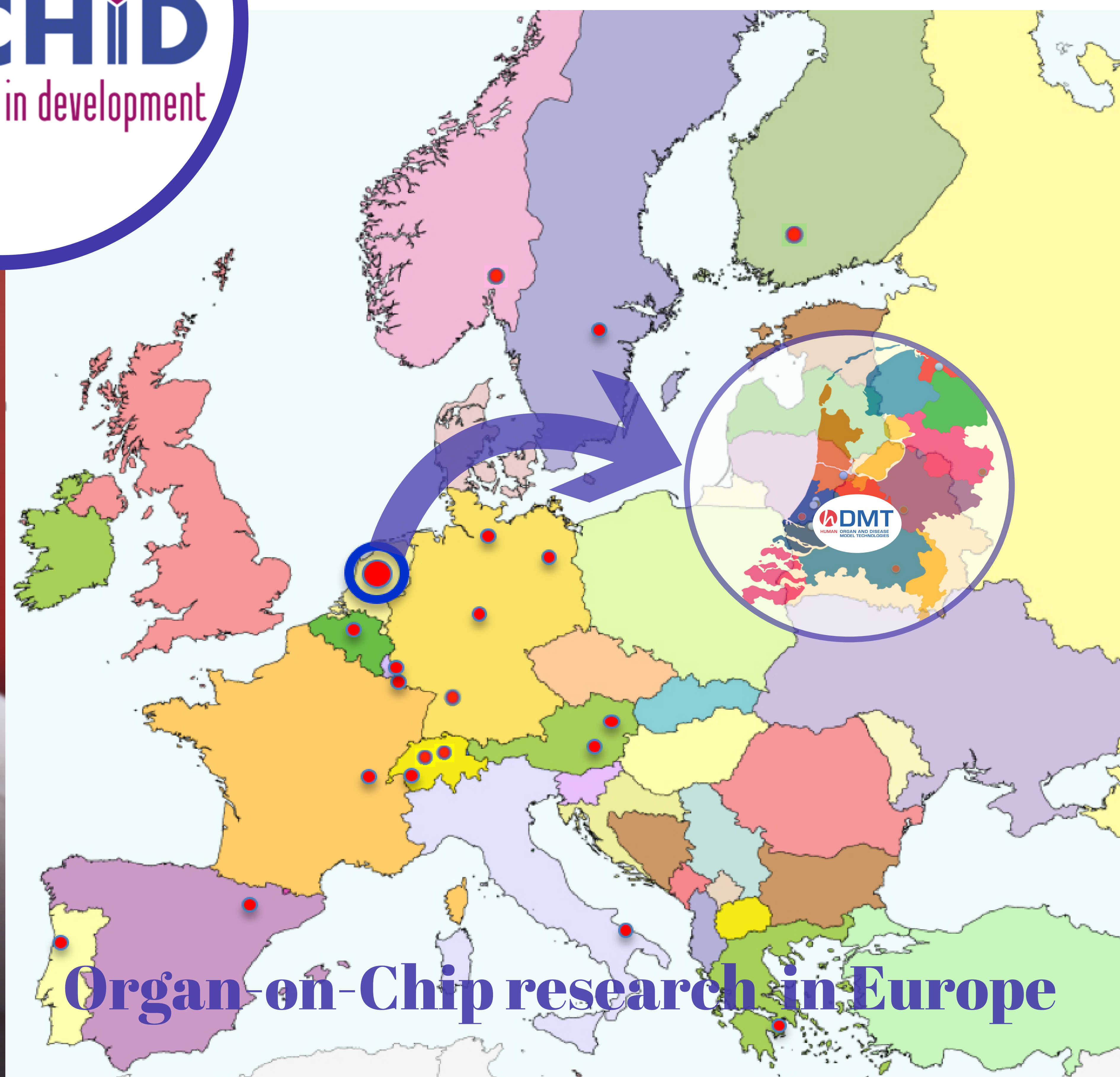
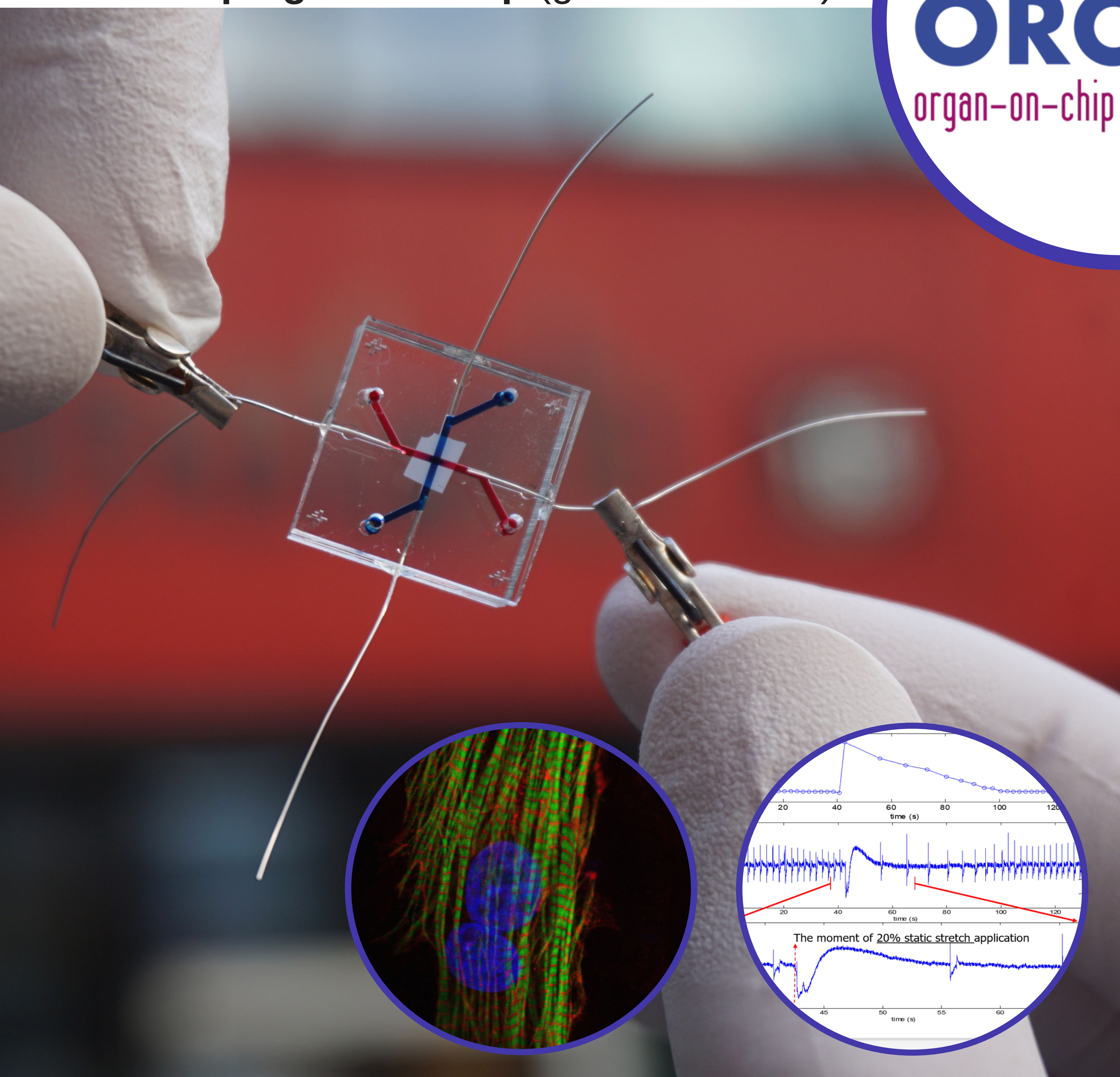


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