Energy Harvesting From Biological Cells

Until today, all medical electronic devices operate on batteries or external energy transfer. Autonomously driven, self-sustaining medical electronics do not exist. Current energy supply technology limits implantable electronic lifetime and restricts applications of advanced biosignal monitoring to better guide patient monitoring in digital health. Eventually, replacement surgery becomes necessary with associated costs and risks.

Celtro is developing technology, which allows to collect electrical energy of living biological cells with the purpose to sense, communicate and process in medical electronic devices such as loop recorders and cardiac pacemakers.

We are looking for motivated professionals to join our team!

Research Biologist / Biomedical Engineer - Cardiac Implant Interfaces (m/w/d), full time

Your profile:
- Master or PhD in Biomedical Engineering, Cell Biology, Immunology or a related field
- Expertise in cell-material interactions, foreign body response, or implant biology
- Working knowledge of cardiac tissue biology and wound healing
- Familiarity with implantable electrode systems and basic electrophysiology
- Basics in program management
- English language skills for coordination and daily work

Your responsibilities:
- Biological modelling and design of electrode systems for cardiac energy harvesting
- Design and conduction of in-vitro and in-vivo studies
- Correlation of biological responses with electrical performance metrics (impedance, signal stability, charge transfer)
- Cooperation with Electrical and Systems Engineering

Your benefits:
- Work in a startup environment with a small, responsive team and flat hierarchy
- Significant autonomy regarding own ideas and their implementation
- Flexible time home office work

Contact:

Celtro GmbH
Dr. Gerd Teepe
Bischofsweg 106
01099 Dresden
Germany

info@celtro.de
www.celtro.de