



VISION

To **deepen knowledge of children's growth and development** (ontogeny) and translate this understanding into **novel, child-specific therapies and health solutions**, supported by advanced research services.



MISSION

To **provide high-quality basic, preclinical, and translational research services** to public and private stakeholders, enabling the discovery and development of **innovative paediatric medicines, medical devices, and digital health solutions dedicated to children.**

EPTRI Members



EPTRI connects a network of leading experts dedicated to **advancing collaborative paediatric research and innovation**, combining multidisciplinary expertise that supports paediatric research across the entire pathway from basic science to clinical application.

EPTRI counts with **27 Members** from **15 EU and non-EU countries.**

Services Provided

Paediatric Disease Characterisation



- Integrated structural biology and multi-omics approaches for paediatric disease characterisation and biomarker discovery and validation
- AI- and structure-enabled approaches supporting paediatric drug discovery from target identification to hit-to-lead optimisation

Paediatric Medicines Development Services



- Non-clinical paediatric research support, including advanced in vitro and in vivo models, toxicity and efficacy assessment, biobanking, and in silico ADME/toxicity prediction
- Scientific and regulatory expertise supporting paediatric medicine development and evaluation

Paediatric Medical Devices Development Services



- End-to-end support for paediatric medical device design, prototype development, verification, and performance testing
- Expertise in usability assessment, regulatory guidance, technology transfer, scale-up, and exploitation support

Paediatric Clinical Research Services



- Support for paediatric clinical study design, innovative methodologies, and transition from non-clinical to clinical research
- Regulatory, ethical and real-world data integration support for clinical studies
- Specialised paediatric trial services including patient engagement, recruitment, trial conduct, and clinical operations support

Paediatric Health Data Services



- GDPR-compliant frameworks for secure paediatric data processing, governance, integration, and storage
- Advanced data management, FAIRification, AI-based data analysis, semantic mapping, and federated learning approaches for research and clinical applications

To request a service, please complete the form [here](#).

Become an EPTRI Member

EPTRI members aim to increase knowledge on paediatric development and ontogeny and to provide high quality services to support the discovery of innovative health solutions for children.

To join EPTRI AISBL, please complete the [Association Form](#), sign it and send it back via email to coordinator@eptri.eu.



Projects, Initiatives and Partnerships



With the support of
This Project has received funding from the European Union's Horizon Europe Framework Programme under grant agreement No 101163377



OrphaDev4Kids is a 3 year Project aiming to address the issue of Orphan Medical Devices (MDs) for the paediatric population. Paediatric MDs development faces unique challenges as children often differ from adults in size, growth, development, body composition, and disease features.

Wearable multiplexed biosensor for cyanotic congenital heart disease

Support the development of a wearable multiplexed biosensor for the prevention of lactic acidosis in children with unrepaired congenital heart defects

Medical device for non-invasive cardiac assessment in patients with Tetralogy of Fallot

Support the development of a non-invasive medical device (Video-cardiograph - VCG) for the assessment of the mechanical function of the heart in real time during open-chest surgery

Medical device for Bone Fragility

Support the development of an absorbable biocompatible implant with a paediatric indication for the treatment of bone fractures in children

Open Call to request services for medical device development

OrphaDev4kids invites academics and individual researchers, startups and industrial players, organisations from diverse settings, and patient-led developers, to **request for supporting services** both for new device development and for the adaptation of existing products for the orphan and paediatric populations.



Are you developing a **new medical device** or adapting an existing device for **paediatric populations** or orphan indications?

If you need support, reach out to us!

The OrphaDev4Kids project will provide **facilities, tools and supportive services!**



EPTRI Toolkit

On Basic and Translational Paediatric Research for Patients and Families



EPTRI Paediatric Medical Devices Platform Webinar series

The EPTRI Medical Device Development Platform has organised a one year online educational programme based around specific topics relating to child health technologies such as regulation, compliance, commercialisation and funding



MANIFESTO ON PAEDIATRIC RESEARCH

A supportive document for policy makers and other stakeholders to promote more paediatric and orphan medicines and the inclusion of paediatric research topics in the EU Agenda.



EPTRI PAEDIATRIC MEDICAL DEVICES PLATFORM

- Funding
- Regulation
- Child Health technologies
- Accessibility to MDs
- Virtual Reality
- Compliance
- Digital Solutions

WEBINAR SERIES 2024/2025

Special Issue dedicated to Medical Devices

frontiers | Research Topics

Paediatric and Orphan Medical Devices: From Concept to Care—Transforming Innovation for Children's Health

Submit your paper >



Participation in EU initiatives



Paediatric Research Needs Survey

EPTRI invites stakeholders across the paediatric research and innovation ecosystem to participate in the **Paediatric Research Needs Survey**, an initiative designed to gather insights on current research needs, key gaps, operational and regulatory barriers, and strategic priorities to better shape future paediatric research and support activities.



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