CENTRE FOR
HUMAN
SPECIFIC
RESEARCH

Our mission is to support the acceleration of new treatments for human disease through the adoption of human-specific research

Inside:

Human-Specific Research:

Techniques and technologies which aim to improve the diagnosis, prevention, and treatment of human disease based solely upon human biology.

About Us

CENTRE FOR HUMAN SPECIFIC RESEARCH

Several years in the making, the **Centre for Human Specific Research** is the brainchild of a group of visionary leaders from across the pharmaceutical, biotechnology, and scientific communities. The Centre was established to address the fundamental challenges that hinder the advancement of human-specific research by companies and institutions alike.

The Reality of Drug Development

The drug development process continues to be hampered by **high failure rates in clinical trials, spiralling costs and extended research timelines**. A considerable amount of time and money is being invested into early drug discovery and preclinical testing for drugs that are unlikely to make it to market.

An Overreliance on Animal Models

Animal research has long been intertwined with the drug development process; there is however a growing body of evidence questioning the value and relevance of animal research, due to the **disconnect between preclinical and clinical studies**.

The Time for Human-Specific Research

Advances in human-focused technologies, shifts in regulatory requirements, and growing political and ethical pressures have **opened the door for the adoption of human-specific research** in early-stage drug discovery and preclinical studies.

Making the Transition

There are already encouraging signs that human-specific research is being adopted in drug development. For many however, perceived problems with **regulatory acceptance, limitations in technology, industry inertia, and the balance of risk versus investment**, serve as significant hurdles preventing transition.

Our Purpose: To support the creation of solutions that accelerate the adoption of human-specific research.

Technologies

Human-specific research is a broad term which encompasses many **human-focused technologies used throughout the drug development process**. Below we highlight some of the key technologies which are being used in a wide range of basic research applications and drug development.

In Vitro Assays (Cell-based)

Human cell-based assays ranging from simple 2D monocultures up to advanced 3D multicellular systems designed to mimic the physiological aspects of an organ.

Examples: 2D cell culture, spheroids, organoids, organ-on-a-chip.

Ex Vivo Assays (Tissue-based)

Culturing of human tissue explants with intact architecture.

Examples: Precision-cut tissue slices.

Omics Technologies (Bulk, Single-cell & Spatial Techniques)

The study of large biological datasets to investigate cellular response at a molecular level.

Examples: Genomics, transcriptomics, proteomics, metabolomics.

In Silico Analysis (Computational Models)

The use of computer simulations and algorithms to predict biological effects.

Examples: Virtual screening, ADME and toxicology predictions.

Our Commitment: To create awareness, educate, influence, and collaborate by providing tailored products and services designed to help and support individuals and organisations.

Our Services

Ask the Expert

Whether you are considering research strategies, evaluating current innovations, or have just hit a roadblock, our experts are here to help you.

Knowledge Centre

Catch up on the latest news via our website or explore current topics and innovations at one of our workshops. However you access your knowledge, we can help.

Antibodies Database

Searching for a more reliable and effective solution? Why not explore our new recombinant antibody and antibody mimetic database, coming soon.

Grants & Funding

We provide grants and funding for academic and industry projects. Our aim is to accelerate the adoption of human-specific research by providing more access to resources.

Contact Us

CENTRE FOR HUMAN SPECIFIC RESEARCH

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