RARE DISEASE RESEARCH

Accelerating Research For Finding Therapies

JOHN PAUL II MEDICAL RESEARCH INSTITUTE

The John Paul II Medical Research Institute (JP2MRI) is a 401 (C) (3) non-profit organization established to create a faster and more streamlined process in conducting regenerative medicine research. This process will find cures and therapies exclusively using adult stem cells. The Institute develops research technologies that will broadly advance drug discovery and regenerative medicine for many diseases consistent with bioethics that recognizes the sanctity of human life.

The Institute has a federally registered Institutional Review Board (IRB) with networks utilizing several Iowa private hospitals and clinics. This structure allows the Institute to recruit patients with rare diseases and to procure their tissue samples for producing stem cell models for screening drugs that may lead to clinical trials. The Institute can recruit patients anywhere within the United States. The Institute serves as a catalyst with a novel model that incorporates the private medical practice sector as an equal partner to increase the drug discovery output and productivity for academia, government and industry. The Institute is recruiting private physicians around the country to participate in our rare disease research program. For details we refer doctors to our website (www.jp2mri.org).

LESS THAN 1 PERCENT OF RARE DISEASES HAVE A TREATMENT OR CURE. THERE ARE SEVERAL SCIENTIFIC CHALLENGES IN FINDING THERAPIES. THE INSTITUTE HAS CREATED A PROGRAM TO ACCELERATE DRUG DEVELOPMENT BY CREATING STEM CELL MODELS FROM PATIENTS WITH RARE DISEASES, WHICH CAN BE USED TO SCREEN DRUGS THAT POTENTIALLY CAN BE USED IN CLINICAL TRIALS. THE INSTITUTE IS ACTIVELY RECRUITING PATIENTS WITH THE FOLLOWING DISORDERS TO DEVELOP STEM CELL LINES FOR SCREENING DRUGS:

- Lysosomal Storage Diseases
- Rare Genetic Diseases
- Neurological Diseases with Strong Family History – e.g. Alzheimer and Parkinson Disease, ADHD, dyslexia, Autism and ALS.
IPS cells have the same properties as embryonic stem cells but do not require the destruction of human embryos to create such cell lines.

CET has developed advanced processes to increase the efficiency and decrease the time and cost of producing IPS cell lines for drug discovery. The IPS cell technology has been experimentally validated for their pluripotency.

CET is partnering with the Institute to develop a private rare disease IPS cell repository to accelerate drug discovery in government, industry and academia around the world.

The Institute and CET are partnering with The University of Iowa High Throughput Screening Facility (UIHTS) housed in the College of Pharmacy. It is equipped to perform automated high throughput drug screening. UIHTS is currently stocked with a library of 2320 structurally diverse compounds including marketed and experimental drugs as well as natural products. The UIHTS also has a larger collection of 50,000 small molecules representing a wide swath of chemical space, optimized to be “drug like.”

Charitable donations to JP2MRI are tax-deductible and over 90 percent of donations are directed towards medical research. Send donations to 2500 Crosspark Rd., Suite W230, Coralville, IA 52241.