Tissue Chips for Drug Screening

supported by Cures Acceleration Network

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View the video:
https://ncats.nih.gov/tissuechip/about
Tissue Chips: Engagement with patient partners

- Tissue Chip Program is working with the Rare Diseases Clinical Research Network (RDCRN) and their Patient Advocacy Groups to develop pre-clinical models of rare diseases

- Examples:
  - Hereditary Hemorrhagic Telangiectasia (Washington U and UC Irvine) – Vascular Malformation Consortium
  - Glycogen Storage Disease III (Duke University) – Lysosomal Diseases Network
  - Tuberous Sclerosis (Vanderbilt University) – Developmental Synaptopathies Consortium
  - Nephrotic Syndrome (U Washington) - Nephrotic Syndrome Study Network
  - Alpers Huttenlocher syndrome (Pittsburgh) – Childhood Liver Disease Research Network; North American Mitochondrial Disease Consortium
  - Congenital Central Hypoventilation Syndrome (Berkeley and Gladstone) – Autonomic Rare Diseases Clinical Research Consortium
  - Rett Syndrome (Morgridge) – Rett, MECP2 Duplications and Rett-Related Disorders Consortium
  - Hutchinson-Gilford Progeria Syndrome (Duke University) – Progeria Research Foundation
  - Timothy Syndrome (Columbia University) - Sudden Arrhythmia Death Syndromes (SADS) Foundation
Tissue-on-Chips: New and Planned Initiatives

Disease Models for Efficacy Studies 2017-2022

Tissue Chips-in-Space 2017-2021

Clinical Trials-on-chips

Human body-on-a-Chip

Precision Medicine You-on-chip