CONCEPT CLEARANCE

A Request for Applications (RFA) for Developmental Projects for the Collaborative Initiative on Fetal Alcohol Spectrum Disorders (CIFASD)

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Fetal Alcohol Spectrum Disorders (FASD)

• A spectrum of lifelong health conditions affecting individuals with prenatal alcohol exposure including facial anomalies, growth retardation, neurological abnormalities, and cognitive deficits.
Fetal Alcohol Spectrum Disorders (FASD)

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- Estimated prevalence is 1-5% among 1st graders in four US communities (May PA et al., 2018. JAMA). Of the cases identified, only 1% had been previously recognized.
Collaborative Initiative on Fetal Alcohol Spectrum Disorders (CIFASD)

- CIFASD consortium was established to meet major challenges to FASD research:
  - need for multi-disciplinary/translational approaches;

- CIFASD4’s research (9 U01 projects; 2 UH2 developmental projects)
  - 3D imaging
  - Neuroimaging
  - Neurobehavior
  - Biomarkers
  - Telemedicine
  - Diagnosis/Screning
  - FASD
  - Interventions
  - Genetic/mechanism
Collaborative Initiative on Fetal Alcohol Spectrum Disorders (CIFASD)

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  - need for multi-disciplinary/translational approaches;
  - need for a large number of study subjects to control for confounding variables

- CIFASD4 shares cohorts from US, Canada, England, and Ukraine
  - 3D imaging
  - Neuroimaging
  - Neurobehavior
  - Biomarkers
  - Telemedicine

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CIFASD Developmental Projects

CIFASD4 UH2s (2017-19)

• Biomarker for intellectual disability in children prenatally exposed to alcohol (PI: Kazue Hashimo-To-rri)
  o Does peripheral, single-cell RNAs predict neurobehavioral deficits following prenatal alcohol exposure?

• Prenatal alcohol effects on the gut microbiome contributing to failure to thrive and altered immune function (PI: Thomas Blanchard)
  o Does prenatal alcohol alter the microbiome and immune response in exposed off-spring?
CIFASD Developmental Projects

• Success of past CIFASD developmental projects:
  o Independent grants
    ▪ Of 7 projects in CIFASD3, 5 successfully competed for U01, R01, and R21s.
      e.g., Johann Eberhart’s dev. project → R01 on genetic risk factors for alcohol-induced birth defects
  o New research directions (i.e., translating animal findings of dev. projects)
    ▪ maternal miRNA predictors of child outcomes (U01, PI: Rajesh Miranda)
    ▪ maternal cytokine biomarkers of exposure & effect (U01, PI: Joanne Weinberg)
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• RFA needed to solicit a new set of developmental projects
Goals of the New CIFASD Development Projects

• To solicit exploratory projects in novel and underexplored areas of FASD research

• Awardees are encouraged to establish collaborative relationships with CIFASD consortium to leverage resources and maximize the impact
Statement of Work for the RFA

• **Mechanism:** UH2 cooperative agreement for 2 years

• **An open competition**

• **Research topics:**
  - Diagnosis and screening
  - Etiology and mechanism
  - Prevention approaches
  - Interventions

• **Will be encouraged to collaborate with CIFASD**
Thank you