21st Annual EpiCenter Symposium

Celebrating 20 years of epilepsy research training at UCI

May 22, 2024

Sue Gross Auditorium
Welcome to the EpiCenter

We're glad you're here

THE EPILEPSY RESEARCH CENTER

exists to train the next generation of neuroscientists and to overcome epilepsy and other unsolved brain diseases through exemplary research.

Connect with us
Online: www.epilepsyresearch.uci.edu
Email: epilepsy@uci.edu
Twitter: @UCI_EpiCenter

from the DIRECTOR

Twenty years ago, a group of UCI faculty, led by Dr. Tallie Z Baram, obtained funding from NIH to train the next generation of epilepsy researchers. UCI is now home to the only NIH-funded T32 training program in epilepsy research. We are proud of our program alumni. Many have assumed leadership positions in academia and the private sector across the US and now mentor their own trainees, expanding exponentially the impact of our program on the future of the epilepsy research workforce.
T32 Training Program in Epilepsy Research
Program directors: Tallie Z Baram, MD, PhD; Robert Hunt, PhD

Julian Quintanilla, PhD
Postdoc, Gall / Lynch labs
Julian is investigating hippocampal circuit dysfunction in genetic and acquired models of epilepsy.

Jasmine Chavez
Graduate Student, Gall / Lynch labs
Jasmine is investigating the role of early age exposure to intranasal oxytocin in alleviating the incidence of seizures in a Fragile X syndrome mouse model.

Gerardo Sandoval
Graduate Student, Diaz Alonso lab
Gerardo is studying AMPA receptor plasticity and the role of SYNGAP1 in hippocampal excitability.

Aby Flores
Graduate Student, Lur lab
Aby is working to identify links between stress, memory and epilepsy at the circuit and neuronal level.

Alexa Tierno (2022-23) was invited to give an investigator workshop talk at the 2024 American Epilepsy Society meeting on Dec 6 - 10 in Los Angeles.

Jen Yonan (2019-21) won a prestigious A.P. Giannini Foundation Postdoctoral Fellowship for her work on PTEN and mTOR pathway regulation.

Mulatwa Haile (2019-21) won a highly competitive UC - HSI DDI President’s Pre-Professoriate Fellowship Award to complete her graduate studies.

Top teams
#1 UCI EpiCenter
$1205

Top fundraisers
#4 Alexa Tierno
$300

Team captain
Brittney Boublil, PhD

Scan the QR code to learn more about the T32 program in epilepsy research at UCI
The EpiCenter has been selected as one of 12 high-impact research programs that will be located in the new Falling Leaves Foundation Medical Innovation Building. The facility will provide state-of-the-art research space to advance basic, translational and clinical research at UCI. All programmatic spaces will be arranged and designed in order to support cross-disciplinary collaboration while enhancing research synergies.
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<tr>
<th>Time</th>
<th>Speaker/Seminar</th>
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<tr>
<td>9:00 AM</td>
<td>Welcome</td>
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<tr>
<td>9:05 AM</td>
<td>Kevin Beier, PhD</td>
<td>Think positively: novel mechanisms of modulating synaptic plasticity and implications for brain disease</td>
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<tr>
<td>9:35 AM</td>
<td>Mona Sazgar, MD</td>
<td>Recent advancements in treating patients with epilepsy</td>
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<td>10:05 AM</td>
<td>Aliza Le, PhD</td>
<td>Of mice and women: sex differences in synaptic plasticity and memory</td>
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<td>10:25 AM</td>
<td>Spencer Brinker, PhD</td>
<td>Focused ultrasound brain modulation in epilepsy</td>
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<td>Break</td>
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<td>Laura Ewell, PhD</td>
<td>Mechanisms of impaired spatial memory in temporal lobe epilepsy</td>
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<td>Intracranial studies in people living with refractory epilepsy</td>
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<td>Adrenergic mechanisms of stress-induced disruption of persistent cortical activity</td>
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<td>Gerardo Sandoval</td>
<td>The VGCC auxiliary subunit α2δ1 modulates synaptic plasticity, spatial memory and seizure susceptibility</td>
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<td>Robert Hunt, PhD</td>
<td>Update on EpiCenter &amp; T32 training program</td>
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<td>KEYNOTE</td>
<td>Tracy Dixon-Salazar, PhD</td>
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Dr. Tracy Dixon-Salazar is a neuroscientist, geneticist and patient advocate. Her desire to get her Ph.D. was inspired by her daughter, Savannah, who developed intractable seizures at the age of 2, which evolved into Lennox-Gastaut Syndrome (LGS) by the age of 5. She completed her Ph.D. and postdoctoral work at UC San Diego, and it was during her research tenure, and after 16 years of watching daily, unrelenting seizures in her child, that she uncovered the driver of her daughter’s illness and identified a novel precision therapy that improved her child’s life. She now serves as the Executive Director at the LGS Foundation.

**About the Speaker**

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**Session I**

- **9:00 AM** Welcome
  - Robert Hunt, PhD
  - David King-Stephens, MD

- **9:05 AM** Kevin Beier, PhD
  - Think positively: novel mechanisms of modulating synaptic plasticity and implications for brain disease

- **9:35 AM** Mona Sazgar, MD
  - Recent advancements in treating patients with epilepsy

**Session II**

- **10:05 AM** Aliza Le, PhD
  - Of mice and women: sex differences in synaptic plasticity and memory

- **10:25 AM** Spencer Brinker, PhD
  - Focused ultrasound brain modulation in epilepsy

- **11:05 AM** Laura Ewell, PhD
  - Mechanisms of impaired spatial memory in temporal lobe epilepsy

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  - Intracranial studies in people living with refractory epilepsy

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  - Adrenergic mechanisms of stress-induced disruption of persistent cortical activity

- **12:20 PM** Gerardo Sandoval
  - The VGCC auxiliary subunit α2δ1 modulates synaptic plasticity, spatial memory and seizure susceptibility

- **12:35 PM** Lunch
  - Outside on the first floor patio

- **1:40 PM** Robert Hunt, PhD
  - Update on EpiCenter & T32 training program

- **2:00 PM** KEYNOTE | Tracy Dixon-Salazar, PhD
  - Executive Director, Lennox-Gastaut Syndrome Foundation
  - Developmental and epileptic encephalopathies: a personal and scientific perspective
At UCI, we are taking full advantage of a technical revolution in neuroscience as we devise new ways to understand, prevent and ultimately cure epilepsy.

Future leaders in epilepsy research are educated at the UCI EpiCenter where they acquire the skills, knowledge and support necessary to launch a successful career in neuroscience and medicine.

EpiCenter investigators engage the local and global epilepsy communities to work together in shaping the future of epilepsy research and treatment.

**by the NUMBERS**

The EpiCenter is the leading academic research center dedicated exclusively to epilepsy research.

10,450 square feet **RESEARCH SPACE** in the new FLFMIB

~$17 million **ANNUAL FUNDING** for epilepsy-related research

52 trainees **T32 FELLOWSHIPS** for advanced training in epilepsy

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**THE EPICENTER APPROACH**

**DISCOVER | Translate new discoveries into cures**
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**INSPIRE | Leaders of tomorrow**
Future leaders in epilepsy research are educated at the UCI EpiCenter where they acquire the skills, knowledge and support necessary to launch a successful career in neuroscience and medicine.

**EXAPND | Our reach to share advances**
EpiCenter investigators engage the local and global epilepsy communities to work together in shaping the future of epilepsy research and treatment.

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