INNOVATOR SPOTLIGHT

Name of technology / project:

“Koala Kushion: Semi-upright prone infant feeding pillow to improve reflux”
Title and credentials:
**Jessica Grant, MBA, CCC-SLP, CNT, IBCLC**
Pediatric Rehabilitation Supervisor
Neonatal Speech Pathologist/Certified Neonatal Therapist
International Board Certified Lactation Consultant

PI and medical advisor:
**David Sheridan, M.D., M.C.R.**
Associate Professor, Department of Emergency Medicine
Co-Director, Innovative, Disruptive, Emerging Applications for Emergency Medicine

Funding source: OCTRI Biomedical Innovation Program award

Technology number: 2986

*Please tell us about the genesis of your project.*
So many babies have feeding difficulties and often significant reflux is a factor. Correct positioning is one of the easiest ways to ensure babies are eating safely, and frequently improves the symptoms of reflux, as well. In my practice as an infant feeding specialist in the NICU, as well as personal experience with my daughter, I know first-hand the stress of feeding a baby with reflux or other feeding difficulties. We've always known that babies with reflux calm easier when they are upright on a parent’s chest. Most of these infants also breastfeed better in this position as well, so we started feeding some of these babies in an elevated, prone position. While effective, we encountered a problem: With only one provider managing several different tasks simultaneously – including correctly positioning a prone infant while also holding a bottle – the feeding position was unstable and awkward. That’s when I started figuring out how to provide a safe and stable positioner to feed infants ... and the Koala Kushion was born! I connected with clinician and researcher, David Sheridan in Emergency Medicine, and we’ve collaborated on the project ever since. We have now designed it to be used on a person’s lap to feed their baby in a cradled position, elevated prone, or even side-lying while maintaining a specific, elevated angle.

*Who is the main customer for your product?*
This was initially designed for use with neonates in the NICU, however, as we moved along the design process and had discussions with parents it became clear that this product would be helpful for all parents with new babies!
What surprised you most about your experience developing an early-stage technology?
How much the initial idea I had on a napkin would change before we arrived at the final product design.

What is the status of your project now?
I have four working prototypes and a fully engineered CAD design file.

What are your next steps?
My team and OHSU are actively looking for baby product companies to license this design or partner with us.

What inspires you to be an inventor?
To find the pain points that we, as clinicians, deal with on an everyday basis, and fill that gap to improve patient outcomes and ease the burden of care.

Do you have any advice for other inventors and future inventors?
Ask questions of as many people in as many different sectors as possible! Don’t be afraid to be the squeaky wheel to get your innovation going. Just because it hasn’t been thought of before doesn’t mean it’s a bad idea; people may not even realize that’s a pain point for them!

Ms. Grant recently presented at the 2021 OHSU Innovation Showcase during Research Week: Koala Kushion presentation

Personal motto / inspiring quote: “People will forget what you said, people will forget what you did, but people will never forget how you made them feel” – Maya Angelou

Favorite book: Pride and Prejudice, by Jane Austen

FEATURED NEWS

OHSU startup Autobahn receives orphan drug designation for therapeutic compound
OHSU startup Autobahn announced ABX-002 has been granted Orphan Drug designation from the FDA for the treatment of X-ALD, underscoring the need for new treatments for this devastating rare disease. Read the press release.

Discovery raises possibility of new medication for Alzheimer’s, Parkinson’s

OHSU study reveals that synthetic compound regulates gene implicated in neurodegenerative diseases. Read more.

Auxetics raises $1.285 million

Auxetics Inc., co-founded by Ramsey Al-Hakim, M.D., (CSO), John
Kaufman, M.D., M.S., and Khashyar Farsad, M.D., Ph.D., and led by Kabir Bhatia (CEO), raised a $1.285 million in a seed round. Auxetics is developing the next generation of venous stents using fundamental venous biomechanics. Key highlights include:

- ~$425,000 came from Interventional Radiologists and Vascular surgeons with an additional $125,000 coming from physicians in other disciplines.
- Auxetics is leaning into being virtual and hiring key talent from around the country.
- Auxetics is aiming to insert the first stents in animals in November with results available in February of next year.

FUNDING OPPORTUNITIES

2022 Beaverton Startup Challenge

Applications are being accepted for the 2022 challenge where five startups will be selected to receive a $25,000 convertible note investment along with incubation services from the Oregon Technology Business Center (OTBC).
OHSU 1757 - Forward scanning vitrectomy OCT microprobe

OHSU 2421 - Remote endarterectomy device

OHSU 2270 - Versatile Interacting Peptide Tags for High Resolution Microscopy

OHSU 2886 - Videochat materials for enhancing cognitive functions among seniors

For additional technologies available for licensing visit the OHSU Technology Portal.

NEWLY LICENSED OR OPTIONED OHSU TECHNOLOGIES

OHSU # 0614 - Diagnosis of Human Malignances Associated with Activating Mutations of Platelet Derived Growth Factor Receptor Alpha (PDGFRA) (Christopher Corless, M.D., Ph.D., and Michael Heinrich, M.D.)

OHSU # 1771 - Materials from the BioLibrary

U.S. PATENTS ISSUED

Patent # 11,091,779 - Methods and compositions useful in generating non canonical CD8+ T cell responses

Patent # 11,091,775 - Recombinant cytomegalovirus vectors as vaccines for tuberculosis

RESEARCHERS IN NEW INDUSTRY-FUNDED RESEARCH PROJECTS

Monica Hinds, Ph.D. - Inhibition of coagulation factors for treatment of thrombosis
Elie Traer, M.D., Ph.D. - Identification of treatments for prevention of early resistance in AML patients

**FEATURED EVENTS**

**Oregon Pediatric Innovation Event Powered by the West Coast Consortium for Technology & Innovation in Pediatrics (CTIP)**

Join us on Sept. 1, 2021, starting at 4 p.m. PST for the Oregon Pediatric Innovation Event Powered by CTIP. This virtual event will bring together pediatric medical device innovators, public and private life science organizations, research institutions, scientists, entrepreneurs, engineers, clinicians, and the Oregon and SoCal entrepreneurial community, to discuss and feature some of the best pediatric medical devices. See the agenda and register.

Presentations by: Hemex Health, Brainchild Technologies and ProMedix

**Biomedical Innovation Program award application workshop: Tips for a competitive edge**

If you have an idea for a technical innovation to improve health, consider attending this workshop on Sept. 15, noon - 1 p.m. You’ll walk away understanding the program, process and what makes a strong candidate. Jonathan Jubera, BIP project manager, and Richard Rylander, executive in residence, will introduce the Biomedical Innovation Program and then review the application process, providing step-by-step instructions for completing the letter of intent.

**The program**

The Biomedical Innovation Program at OHSU provides mentorship and
funding to innovators with promising translational projects. The objective is to improve human health by moving these technologies into clinics through commercialization.

**Find out more** on the OHSU Oregon Clinical and Translational Research Institute website or talk with Jonathan Jubera, OCTRI awards project manager.

**Meet our awardees**

**Hear in this video** about research conducted by Biomedical Innovation Program awardees — in their own words. Awardees in the video include Penny Hogarth, M.D., Susan Hayflick, M.D., Theodore Hobbs, D.V.M., and Fergus Coakley, M.D.

**A collaborative program**

The BIP Awards program, now in its ninth year, is a collaboration of the OHSU Oregon Clinical and Translational Research Institute, OHSU Technology Transfer and OHSU Collaborations and Entrepreneurship. Award funding is provided by OCTRI and the OHSU Foundation via the University Venture Development Fund.

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**Enroll now - Biomedical Innovation Program: Commercialization Readiness**

The Biomedical Innovation: Commercialization Readiness Program (BIP Corp) is a five-week course for life science innovators to advance their technology to clinical practice. Based on the NSF I-Corps program, it combines business model training with a customer discovery process to help teams accelerate the business development process. Led by a national NSF and NIH I-Corps instructor, this course is offered at no cost and is ideal for individuals or teams of scientists, clinicians, postdocs, graduate students or entrepreneurs with an early-stage biomedical innovation or idea. Non-OHSU participants are welcome!
Enrolling projects for the Sept. 10 – Oct. 15 virtual cohort. Learn more and enroll by Sept. 3.

**OHSU Invent-a-thon Social Hour: Spotlighting FemTech**

The age of FemTech has arrived and it’s about time! Come forge connections with fellow providers, entrepreneurs, and researchers who are excited about advancing women’s health and hear from two rising stars in digital health and medtech. We are thrilled to have Melissa Hanna, Co-founder and CEO of Mahmee, and Holly Rockweiler, Co-founder and CEO of Madorra, joining us!

Learn about how they got their start and how their exceptional startups are empowering women and advancing health equity. Stay to mingle and network on our unique, fun, and interactive platform. Bring a friend and your beverage of choice.

**When:** Tuesday, Sept. 28, 4-5 p.m. PT  
**Where:** SpatialChat (join from a computer for best experience)  
**What:** Invent-a-thon Social Hour: Spotlighting FemTech  
**Registration:** Learn more and REGISTER for free.

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**UPCOMING EVENTS**

**WEDNESDAYS**  
**Toastmasters at OHSU: Yammertime**
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<tr>
<td>SEPT. 1</td>
<td>TIE Women Pitch Competition</td>
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<tr>
<td>SEPT. 8</td>
<td>Healthcare Innovation: Basics of Finance and Funding Sources</td>
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<td>SEPT. 8 and 15</td>
<td>Demystifying SBIR/STTR Funding- Grant Writing Bootcamp</td>
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<td>SEPT. 9</td>
<td>Power Pairing: Women Leading in Tech</td>
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<td>SEPT. 9</td>
<td>Virtual Accelerate Biotech + Digital Health Happy Hour</td>
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<td>SEPT. 13-17</td>
<td>UIDPConnect2021</td>
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<td>Anyone with an @ohsu.edu email address can register for access to all sessions. Contact Cadence True for registration information.</td>
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<td>SEPT. 15</td>
<td>Virtual Lunch &amp; Learn: Managing Stress &amp; Performance</td>
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<td>SEPT. 16</td>
<td>Non-dilutive Funding for Heart, Lung, Blood, and Sleep-related Biomedical Technologies</td>
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**SPONSORS**

We welcome and appreciate the collaborative nature of organizations that want to be a part of the ongoing innovative and entrepreneurial efforts at OHSU. Thank you to our sponsors!
Questions? Contact us at techmgmt@ohsu.edu.

This monthly publication is created in collaboration with OHSU Technology Transfer, OHSU Collaborations and Entrepreneurship, and the Oregon Clinical and Translational Research Institute.