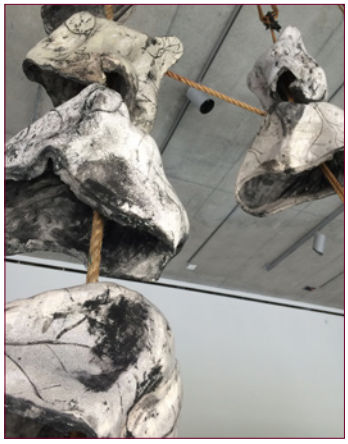
Interstice: Memory, Mind and Alzheimer's Disease Art Exhibit Opens at Granoff Center

MARY KORR
RIMJ MANAGING EDITOR

PROVIDENCE – A unique curated multimedia art exhibit on Alzheimer's disease (AD) opened in the Cohen Gallery at the Granoff Center for the Creative Arts at Brown on July 16. As you enter the gallery, the visual expression of the ravages of AD by neuroscientist **PETER J. SNYDER, PHD**, titled *Collapse of a Memory Circuit,* draws in the visitor by its size, scope and fluidity. It looks like a giant 3-D mobile of several dozen glazed ceramic neurons suspended on vintage rope and antique block-and-tackle (which Dr. Snyder found on Ebay).

A woodturner and ceramicist, Dr.



COURTESY OF PETER J. SNYDER

Collapse of a Memory Circuit (detail)

MARY KORR

Collapse of a Memory Circuit *by Peter J. Snyder*
Artist Peter J. Snyder discusses his three-dimensional representation of a cortical memory circuit as originally envisioned by Donald Hebb (1952) and rendered in 2-D line diagrams, but in the process of structural collapse due to Alzheimer's disease. Large installation involving approximately 30 raku-fired clay bodies, molded from original wooden sculptural form, incised and glazed suspended by old cotton-farm ropes and antique blocks and tackle.

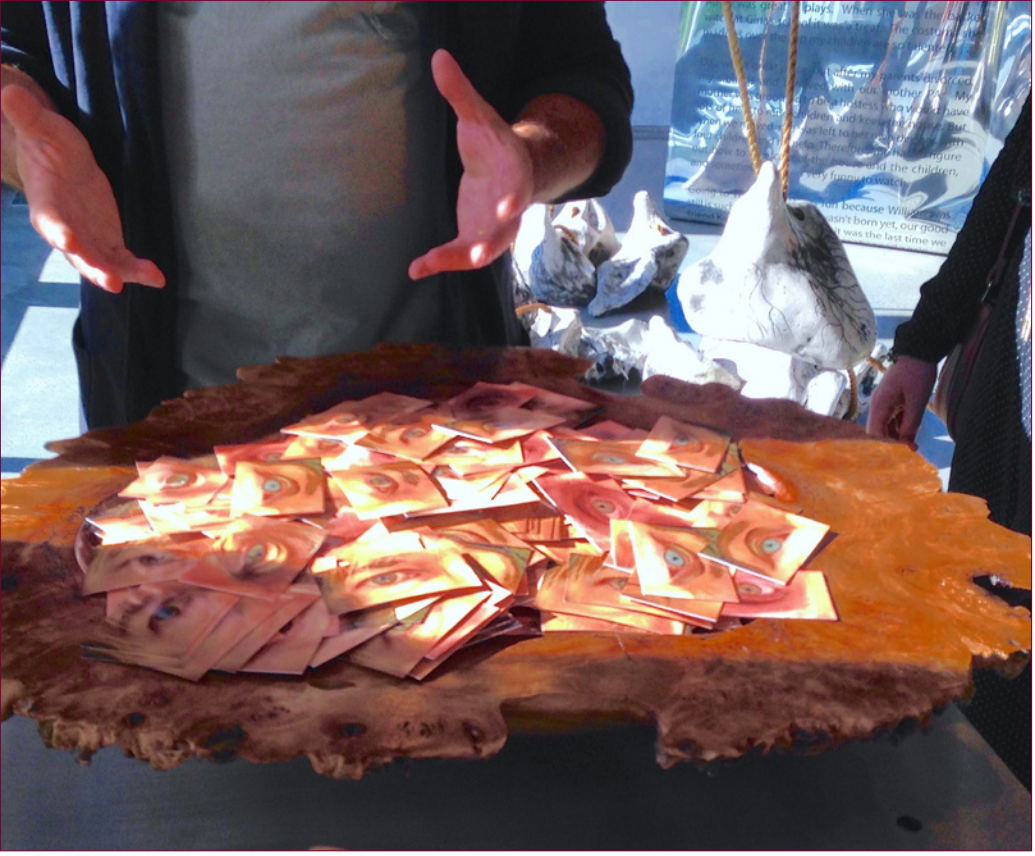
Exhibit features work of 5 RI artists

The exhibition features all Rhode Island-based artists, who created works in pen and ink, metal, enamel, wood, photography, sound and film to tell the story of Alzheimer's. The artists used a number of raw materials, such as images, recorded voices, retinal scans and brain scans of nearly 60 Rhode Island residents who are all caring for loved ones with Alzheimer's, and who are all concerned about succumbing to the disease themselves.

Artists include:

- **Babette Allina** – multi-media artist, curator and responsible for all community engagement and governmental affairs for the Rhode Island School of Design.
- **Cybele Collins** – Rhode Island School of Design graduate, local artist and graduate student in molecular biology.
- **Will Reeves** – Rhode Island School of Design graduate, metal shop technician for the school's industrial design department, local artist, designer, educator and co-founder of *The Wurks* in Providence.
- **Dianne Reilly** – associate professor of art at Rhode Island College, head of the jewelry metals area at the college, local artist and designer.
- **Peter J. Snyder, PhD** – Lifespan chief research officer and senior vice president, professor of neurology, Alpert Medical School of Brown University and scholar-in-residence, Rhode Island School of Design; woodturner, sculptor and specialist in diagnosis and treatment of Alzheimer's.

The exhibit runs through September 9, 2015. Sponsors include Lifespan health system; Creative Arts Council, Brown University; Norman Prince Neurosciences Institute, Rhode Island Hospital; Brown Institute for Brain Sciences; The Department of Cognitive, Linguistic & Psychological Sciences of Brown University; The University Neurology Foundation and *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.



MARY KORR

Wooden vessel created by Peter J. Snyder contained photo cards of the eyes of AD patients on the front, with information on Alzheimer's Disease for the general public on the back.

Snyder is senior vice president & chief research officer at Lifespan, professor of neurology at the Alpert Medical School as well as scholar-in-residence at the Rhode Island School of Design.

At the opening celebration, which also featured the work of four other artists, he described this installation as a representation of a cortical memory circuit inspired by the drawings and diagrams of neuropsychologist Donald Hebb (1952) which depicted the structural collapse due to Alzheimer's disease.

Patients and their families, colleagues, and family and friends of the artists attended the event, which will be on display through September 19.

"Who this disease affects goes way beyond just those diagnosed; it also greatly impacts family members, care givers and care providers. We expect the numbers to rise dramatically over the next 20 years, as the baby boomers age. Now, more than ever, there needs to be an increased effort to raise public awareness of Alzheimer's," said Dr. Snyder, who specializes in the diagnosis and treatment of this disease.

This exhibit does just that, as one could observe by the reaction of several children at the event, who reached out to touch the disassociated neurons or dart in and out of a suspended metallic wall inscribed with memories of patients. One young reader read aloud the memories as if he was reading a storybook…"I remember Adele…."

After the event, RIMJ asked Dr. Snyder a few questions about the artistic and scientific coalescence of his work.

Q. Did you study art in college and have you been influenced by any specific artist(s)?

A. I did study ceramics and photography in college, in addition to neuroscience and psychology. When I graduated from college I applied to both art schools and PhD programs, was accepted to both, but I decided to pursue a dual-PhD program in neuroscience and clinical (neuro)psychology. Throughout all of my training and early career, I always set time aside for ceramics, but about 10 years ago I started to work mostly in wood. I try to bring together my understanding of the natural world as a neuroscientist, and with my understanding of human experience as a psychologist, to convey ideas in my studio art practice. My academic research is centered on the biology of Alzheimer's disease.

I have been heavily influenced by a number of artists, such as contemporary woodturners Graeme Priddle (New Zealand) and William Hunter (United States). I also take great inspiration from the famous photographer, Roman Vishniac, who really pioneered artistic electron microscopy photography (amongst other major accomplishments) in the 1950s.

Q. What are your thought processes as you create the visual expression of neuroscience and disease in your work and how has your art informed/enhanced your career as a researcher and neuroscientist?

A. I use my artwork to reflect on my clinical research, and to understand the anatomy of what I am studying in the lab and clinic. When I started to explore high-resolution optical computed tomography (OCT) of the retina, for potential biomarkers of preclinical Alzheimer's disease, I needed to learn retinal anatomy in much greater detail than I had previously mastered. One day I started to turn and carve a piece of manzanita burl at my lathe, and after 4-5 hours of being lost in thought, looked at what I had done, and I was literally surprised to find that I had just completed a vessel in the shape of an eye, complete with ganglion cells around the rim. At the clinic and lab I look at data and brain images and sometimes daydream about how I might use this material in my artwork. When I am in my studio at home, I use my craft to brainstorm about new ideas and scientific questions that often lead to new experimental designs. I would have a hard time doing one without the other.

Q. The eyes on the cards in wooden bowl – who photographed them and are they the eyes of patients?

A. I photographed them, and they are of my clinical research study subjects at Rhode Island Hospital. All of my subjects have (quite enthusiastically!) signed model releases, and about a dozen of them attended the exhibit opening. I took those photos as part of data collection for a study, in which I

Retinal Vasculature Montage *by Peter J. Snyder*

Retinal imaging of both the vasculature and individual cell layers holds great promise for the development of sensitive biomarkers of early AD progression. Two-dimensional image constructed by overlay of Optical Computed Tomography (OCT) image of artist's right retina on top of 15 inch by 3.5 inch turned spalted ash platter with artist's retinal vasculature in pyrography.

administered a low-dose of an anti-cholinergic medication via a subcutaneous injection, and I was looking at the magnitude of the pupil dilation response to that cholinergic challenge.

Q. You describe yourself as a woodturner. Why wood rather than other media?

A. I spent about 20+ years working in clay for the most part, and about 10 years ago I moved to wood because I wanted to work with a "warmer" organic material. I now mix wood and metalwork for the most part, and I enjoy combining media. I have a small coal blacksmithing forge at home. I apprenticed for 7 years under a phenomenal woodturner, named Ken Dubay. Ken passed away unexpectedly a few years ago, and I miss him dearly. Ken was an ironworker by trade, with just a high school education, but he was the single best – most talented – teacher that I have ever had in my life. ❖