

NWNOGGIN

nwnoggin.org

Arts integrated neuroscience
outreach for K-12 & community



Sleep
Anxiety
Depression
ADHD
Autism
Development
Perception
Drugs
Memory
Language
Bias
...



***What you do
has relevance
GO PLACES***



We all pay for research



Greater understanding
More support for research
Increased participation
Less confirmation bias
New directions
FUN!

Connections matter

BUILD NEW CONNECTIONS



- **Academic priority K-12, urban/rural communities, tribal majority schools**
 - Not always well-funded, or valued, often ignored, subjected to standardized testing that primarily benefits others. Complex brain development underway, unacknowledged diversity, mental health...
- **Homeless youth (p:ear), incarcerated youth (MacLaren Correctional Facility)**
 - “It’s like people see me as an object, not as a human being”
- **Young graduate researchers, undergraduates (PSU, OHSU,...)**
 - How does my research relate to the world? How can I explain it?
 - Where can I go from here? “Alternative careers” in science...
- **Artists: Painters, Dancers, Storytellers, Musicians**
 - How does my work relate to other fields? How do I connect with new audiences?
 - How is my practice influenced and enriched by discoveries about the brain?
- **Area businesses (BioGift, Intel, Velo Cult, Hospitals)**
 - How can we better connect with everyone in our community?
- **Members of the public**
 - Why are my taxes spent on research? Art? What are we discovering? Making?



**Oh the places
you'll go!**

Why art & brains..?

- Motivation, engagement, **empathy**
- Exploration, creativity, INNOVATION
- **Personal relevance of STEAM material**



Build your own mouse line!



N.W. Noggin
@NWNoggin

Building a #rosehipneuron in
#pipecleaners 🧵 #nwnoggin 🧠 🎨
#sciart #scicomm 🌱
nwnoggin.org/2018/08/31/ros...



Kúkátónón Performance

For example...

Dancing, mistakes, movement
...and Parkinson's!



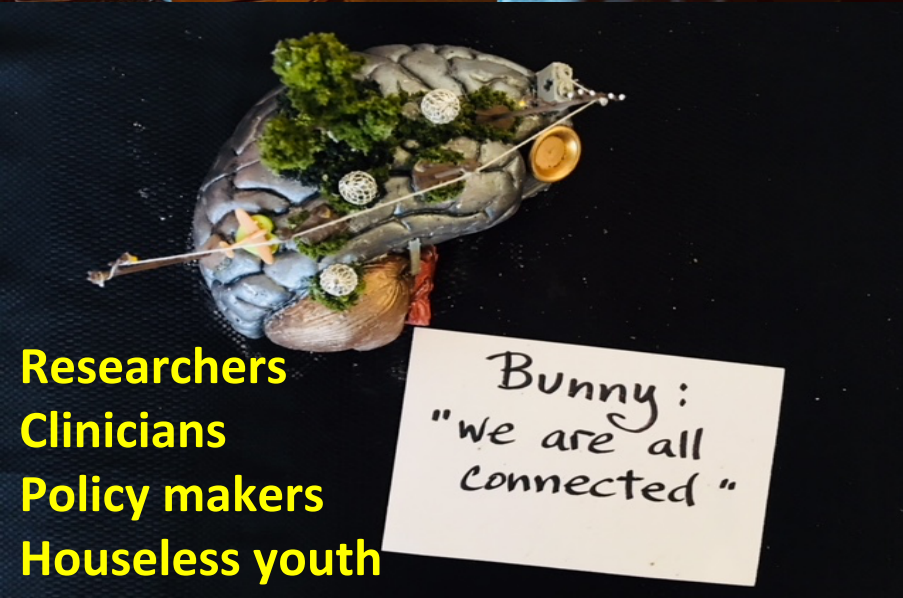
Kúkátónón Dance Troupe @ Velo



Noggin @ p:ear

"It's like people see me as an object, not as a human being"

Our poster today



HOMELESSNESS & THE BRAIN

Thurs, Oct 19th
10am - 1pm



pear mentor gallery
338 NW 6th Ave

nwnoggin.org pearmentor.org

STREET KIDS
ART
NEURO-
SCIENCE



At SfN 2017 in DC



Posters, art of neuroscience *and...*

School visits



Turner Elementary, DC



THIS WEEK...
San Diego Unified Public Schools!

And also...Capitol Hill

More connections: Congressional office visits
Congressional Neuroscience/STEAM briefing



Research should inform policy

Rural Outreach

LEAVE TOWN!

Siletz, Amity &
Willamina, OR
Pop: 4,000

Davenport, WA
Pop: 1,700

La Grande, OR
Pop: 13,000

Meservy
Meadows,
OR Pop:
~40

Heppner & Ione, OR
Pop: 1,240



Food, housing, baby goats...



Noggin in Heppner, OR

Synapses, Stories & Song

Confederated Tribes of the Grande Ronde, Siletz



Synapses, Stories & Song



Neuroscience & the Law



MacLaren Youth Correctional Facility



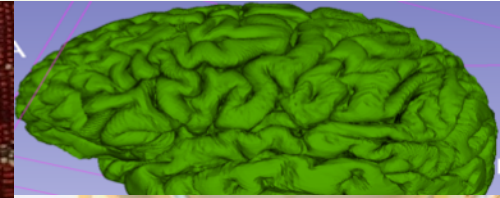
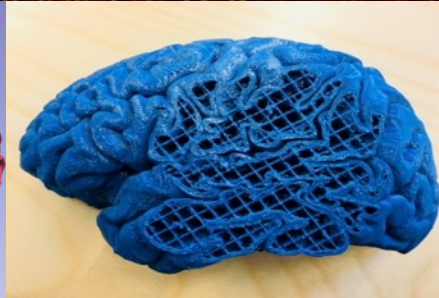
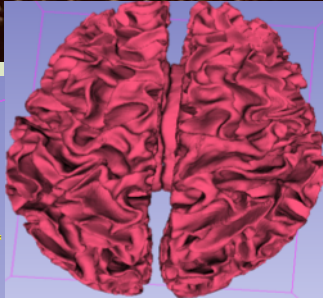
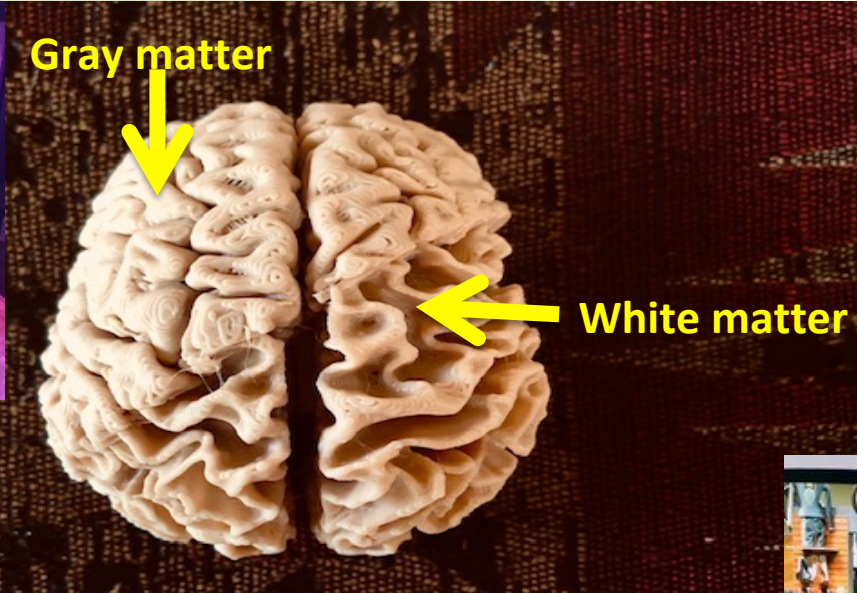
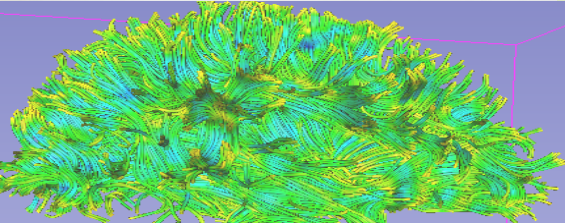
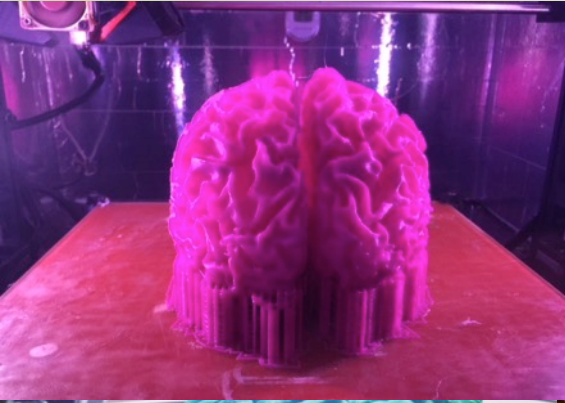
Arch Rock Brewing, Gold Beach, OR



Alcohol and the brain

Art + Neuroscience = 3D printed brains

Collaboration with Make + Think + Code @ PNCA, Intel, PDX 3D Printing Lab!



NOGGIN FEST

A CELEBRATION OF SCIENCE, ART, AND MUSIC

FRI OCT 19

6pm-11pm

B***S OF THE SUN
SHANNON ENTROPY
DISENCHANTER
MOUTHBREATH
STARGASM**

SAT OCT 20

12pm-12am



Connect. *And copy!*

REACH OUT. PARTNER. GO PLACES.

There are resources in ALL our communities...

- Public schools, hospitals, art museums, homeless shelters, youth correctional facilities, pubs, retirement homes,...
- *And don't wait for institutions, especially if they focus more on preserving administrative structures instead of fulfilling their mission...*



Making a pipe cleaner neuron...

1. Start with a good amount of (colorful) pipe cleaners, I have 20 here.



2. Create the soma or cell body by linking several pipe cleaner hoops together.



3. Attach dendrites to your soma by wrapping them around the soma pipe cleaners.



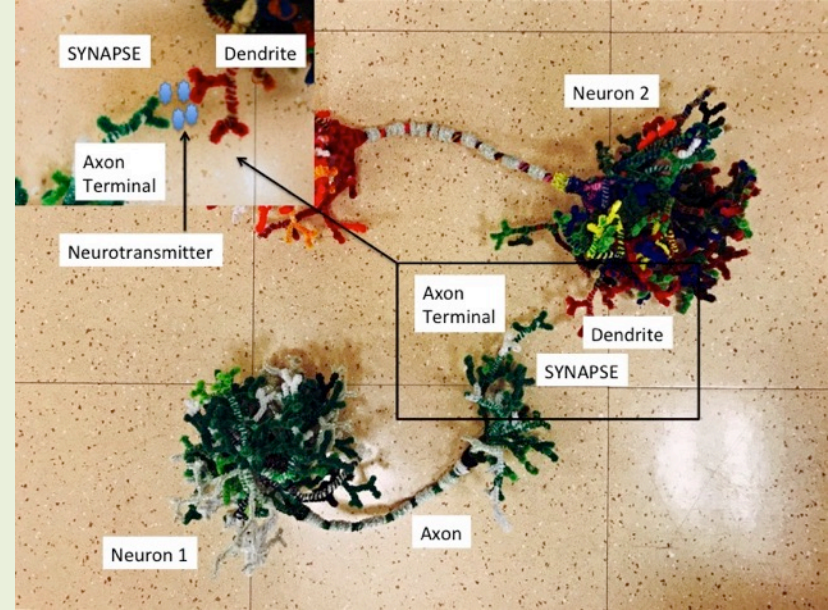
4. Attach axon terminals to the other end of your axon.



5. Wrap myelin around your axon.



6. Create a nucleus for your soma by wrapping two pipe cleaners around each other. Attach your nucleus inside your soma. You have a neuron!



MAKE CONNECTIONS

MAKE ART



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