



## Installation explores neuroscience through nighttime video projection

The project is one of seven graduate collaborations funded by the [Arts | Science Initiative](http://arts.uchicago.edu/arts_science/) ([http://arts.uchicago.edu/arts\\_science/](http://arts.uchicago.edu/arts_science/)).

When it comes to making his work accessible to the general public, Jared Clemens, a PhD Candidate in the [Division of Biological Sciences](http://www.bsd.uchicago.edu/) (<http://www.bsd.uchicago.edu/>), knows that he has his work cut out for him. Rather than let this discourage him, Clemens turned to Marco G. Ferrari, video artist and MFA Candidate (2013) in the [Department of Visual Arts](http://dova.uchicago.edu) (<http://dova.uchicago.edu>), to collaborate on a project designed to visualize the chaotic dynamics of neural function, while at the same time dramatizing his goal to reconcile some of the alienation that exists between the scientific community and the public at large.

Their collaboration culminates in *Opening*, a seven-minute video installation comprised of original and archival images that was supported by a 2012 Arts | Science Graduate Collaboration Grant. The pair plan to project *Opening* onto the Surgery-Brain Research Pavilion (5812 S. Ellis Avenue) on May 11, 8-10 p.m. "In part, we hoped to create an abstraction of the disconnect that exists between a vast majority of the public and the sciences through film, using the concept of neural dynamics as both the content and the structure," Clemens says of the project.

Prior to the full outdoor screening in May, Clemens and Ferrari will join the six other grant recipient teams, including faculty advisors, to present their respective projects. The presentations, which are free and open to the public, begin at 5 p.m., Thursday, April 26, in the eighth-floor Performance Penthouse of the [Reva and David Logan Center for the Arts](http://arts.uchicago.edu/logan/) (<http://arts.uchicago.edu/logan/>). A reception will follow.

Ferrari conceived the idea to project the film onto an exterior wall of the Surgery-Brain Research Pavilion, located just across the street from his studio in Ingleside Hall. The unique choice of venue reflects Ferrari's investigations into the dynamics of cinematic images and exhibition spaces. "My interest and curiosity is how the image can be expressed in meaningful ways to the public, and how to engage this process, how to activate a

### Arts | Science 2012 Graduate Collaboration Grant Projects

The annual grant funds collaborative research between graduate students in the arts and sciences. Below is a full list of this year's projects and recipients.

***Trauma Under the Microscope:*** Collected Perspectives on PTSD

Graduate Students: Nicole Baltrushes (Pritzker Medicine), Carmen Merport (English), and Sravana Reddy (Computer Science)

Faculty: Eric Slauter (English) Mari Egan (Biological Sciences)

***"El Shaddai"***

**Graduate Students:** Stacey Kalmanovsky (Department of Visual Arts), Clare Rosean (Department of Visual Arts), and Philippe Tapon (Medicine)

**Faculty:** Katherine Desjardins (Department of Visual Arts) and Dan Brauner (Medicine)

***"Archetypes of Reasoning"***

**Graduate Students:** Chris Eastman (Department of Visual Arts) and Markus Kliegl (Mathematics)

**Faculty:** Geof Oppenheimer (Department of Visual Arts) and Peter Constantin (Mathematics)

***"Opening"***

**Graduate Students:** Jared Clemens (Biology) and Marco G. Ferrari (Department of Visual Arts)

**Faculty:** David Freedman (Biological Sciences) and Jason Salavon (Department of Visual Arts)

***"Performing the Night Sky: Heavenly Bodies, Microcosms, and the Moving Image"***

**Graduate Students:** Sukanya Randhawa (Chemistry) and Artemis Willis (Cinema & Media)

space,” Ferrari says. “Using the wall of the brain research building connects the narrative with the image and the public in a way we thought would be meaningful.”

Ferrari took inspiration for the formal composition of the project from [Cinema and Media Studies](http://cms.uchicago.edu/) (<http://cms.uchicago.edu/>). Professor Noa Steimatsky’s course Methods and Issues in Cinema Studies, in which the class investigated Sergei Eisenstein’s theory of montage. But Ferrari decided to test the limits of Eisenstein’s theory, which concerns the editing together of disparate, seemingly unrelated images, and in *Opening* the artist experiments with projecting multiple images simultaneously.

“Seeing how various images or frames play and move through a larger frame seemed to me a good way to show the flip side of [Eisenstein’s theory] and connect to how [Clemens] explained the dynamics of neural activity,” Ferrari says. “Perhaps the images playing at the same time will be like [multiple orchestras] playing at once, creating too much confusion, or perhaps the images will work like notes of a chord and create moments of harmony.”

As Clemens explains, the harmonization of disparate strands of information is directly analogical to current scientific theories of neural function. “The dynamics of neural circuits are, not surprisingly, complex, yet however chaotic and random they may seem, structure exists,” Clemens says. “We structured the presentation of the montage to reflect a local chaotic state [as a part of] a holistic rhythm.”

Faculty advisor and Professor of [Neurobiology](http://neurobiology.uchicago.edu/) (<http://neurobiology.uchicago.edu/>) David Freedman perceives the aim of mediating discoveries for a general audience as integral to the work of science. “Relaying scientific findings to the public is as much a part of science as making advances,” Freedman says. “Jared and Marco’s piece is exploring the struggle to bring science to the public by capturing on film an expression of the state of relations between the two parties.”

While both contributors hope their work will help to foment greater interaction between the public and the scientific community, Ferrari sees the project as equally beneficial for his own continued artistic and intellectual development. “As an artist I feel it’s important to be able to reach out to areas where I have no background, so that I can try to connect my personal expressions within a larger context,” Ferrari said. “It is the simple dialog that really allows for a personal connection to unfold.”

By David E. Ford Jr.

#### Related links

- [Grad students to mix arts with science in April 26 presentations](http://news.uchicago.edu/article/2012/04/18/grad-students-mix-arts-science-april-26-presentations) (<http://news.uchicago.edu/article/2012/04/18/grad-students-mix-arts-science-april-26-presentations>)
- [Arts | Science](http://arts.uchicago.edu/arts_science/) ([http://arts.uchicago.edu/arts\\_science/](http://arts.uchicago.edu/arts_science/))
- [Logan Center](http://arts.uchicago.edu/logan/) (<http://arts.uchicago.edu/logan/>)

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**Faculty:** Tom Gunning (Art History and Cinema & Media Studies) and Norbert Scherer (Chemistry)

“**The Music of Movement:** Harnessing Motion Capture Technology to Measure Synchronization in Dance” Graduate Students: William McFadden (Molecular Genetics), Heather Harden (Psychology), and Mariusz Kozak (Music)

**Faculty:** Edwin Munro (Molecular Genetics and Cell Biology) and Larry Zbikowski (Music)

“**PPPPPower of Imagination**”

**Graduate Students:** Chidubem Iloabachie (Pritzker Medicine) and Stacey Kalmanovsky (Department of Visual Arts)

**Faculty:** Elizabeth Kieff (Medicine) and Katherine Desjardins (Department of Visual Arts)



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