WORKS IN THE EXHIBTION

Chromosome Painting, 2012
Window and wall installation spanning 32 ft.
Jacquard dye and dye sublimation, printed on ultra sheer and sheer silk
Panels, 14 x 108 in.

Chromosome Light Boxes 1-22 and X, 2012
Silk Crepe de Chine, Jacquard dyed and printed. Silk panels 13 x 69 in.
Light Boxes: fir, plexi, fiber optic lights
14 x 70 x 3 ¾ in.

Chromosome Paintings 1-22 and X, 2012
Silk Crepe de Chine, Jacquard dyed and printed. Silk panels 13 x 69 in.
The silk panels were produced in a limited edition of 10 and will be sold to raise funds for the University of Washington Cancer Genetic Medicine Clinic for education and research, and for those who have cancer and are unable to afford medical diagnosis and treatment. Additionally, the funds will benefit those who have cancer and would like to bank their DNA so their children and extended family can benefit from genetic testing. A list of Chromosome and the Cancer marker is listed below.

CHROMOSOME
1. Prostate cancer
2. Ovarian cancer
3. Colon cancer
4. Leukemia
5. Gastric Cancer
6. Ovarian Cancer
7. Colon Cancer
8. Hepatocellular cancer
9. Melanoma
10. Prostate cancer
11. Bladder cancer
12. Oral Cancer
13. Pancreatic Cancer
14. Lymphoma
15. Hodgkin's Lymphoma
16. Breast cancer – lobular
17. Breast Cancer
18. Pancreatic Cancer
19. Leukemia t-cell acute
20. Colin cancer
21. Breast cancer
22. Leukemia
X. Testicular Cancer

DNA Microarray, 2012
Cotton, silk with Jacquard dye
8 x 7 ft.

DNA Microarray, 2011
3 small sample color tests
Silk laser printed
8 x 10 in.

DNA Microarray, 2010
2 prototype boxes
Jacquard dye and dye sublimation, printed on ultra sheer and sheer silk
Wood box, engraved plexi
25 x 25 x 4 in.

Chromosome 17, 2009-2011
2 sample pieces
Dyed and embroidered silk
36 x 108 in.

Chromosome 17, 2009-2011
Inkjet photographs of the work installed at the University of Washington.
A commission for the Division of Medical Genetics at the University of Washington that both commemorates 50 years of Medical Genetics and honors its founder, Dr. Arno Motulsky. Installation, University of Washington Hospital, hall between the hospital and the surgery wing. The work uses the National Center for Biotechnical Information (NCBI) database of the human genome as a resource to artistically map scientifically-derived gene sequences.

Case Study 22 Chromosomes X & Y, 2011
Sample piece
Front panel: Jacquard dye and hand embroidery on dye sublimation, printed ultra sheer
Back panel: Laser-printed linen, 20 x 108 in.

Case Study, 2011
Inkjet photos, Installation view, Portland Art Museum
24 scrolls of ultra sheer synthetic silk maps all of the human chromosomes: 22 human autosomal chromosomes, plus the X and Y sex chromosomes. Each scroll is printed with a graphic that represents the chromosome, and includes prominent genetic markers as well as a selection of genetically inherited diseases known by the artist's family lines. Chromosome graphics courtesy of the Human Genome Overview, from the National Institute of Health's National Library of Medicine.

KIRKLANDARTSCENTER
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kirklandartscenter.org

Hours: 11 AM – 6 PM Monday-Friday
Second Friday, 11 AM – 8:30 PM
Saturday, 11 AM – 5 PM

CHROMOSOME PAINTING

GERALDINE ONDRIZEK

The Kirkland Arts Center
May 25 - July 6, 2012

CHROMOSOME PAINTING

And works from a commission for the University of Washington Division of Medical Genetics

GERALDINE ONDRIZEK

The Kirkland Arts Center

Kirkland, Washington

May 25 through July 6, 2012
Opening Reception
June 1, 6pm

Gallery talk
June 1, 5pm and June 2, 2pm
with Geraldine Ondrizek, Genevieve Gaiser Tremblay and Robin Bennett

Closing gallery talk
July 6, 12pm
with Geraldine Ondrizek

A Collaboration

Genevieve Gaiser Tremblay, Curator

In 2009, artist Geraldine Ondrizek, Senior Genetic Counselor and Co-Director of Genetic Medicine Clinics at the University of Washington Robin Bennett, and public scholar and curator Genevieve Gaiser Tremblay, collaborated to bring together art and medical science. This culminated in 2011 with a public art commission created by Ondrizek for the UW Medical Center to commemorate 50 years of Medical Genetics at the University of Washington.

Geraldine Ondrizek is a research-based artist and professor at Reed College. Her work ignites interest and inquiry about the influence of cancer and other diseases on both individuals and entire families. She relies heavily on scientific inquiry, focusing on documenting biological specimens and exploring systems of categorization. She works closely with genetic scientists to trace ethnic identities, portray life spans, and depict genetically inherited conditions. Robin Bennett, one of the most prominent genetic counselors in the nation, teaches human genetics at the UW Medical School. She pioneers genetic counseling practices that have become standard worldwide. As a public scholar, Genevieve Tremblay integrates research, teaching, service, and public engagement in her curatorial practice. The three felt compelled to work together within their own disciplines to make genetic information more accessible, more visible and better understood.

Bennet granted Ondrizek access to a team of groundbreaking genetic researchers, which inspired Ondrizek to create new works that forged visual, scientific and metaphorical discoveries. The works featured in this exhibit explore the nature of our bio-cultural differences and similarities. Ondrizek assembled a rich collection of images from research done by prominent medical geneticists, including, UW Medical Genetics founder Arno Motulsky and Peter Byers.

In the three bodies of work featured in this exhibit: *Chromosome 17*, *DNA Microarray*, and *Chromosome Paintings*, Ondrizek meshes the material semiotics of cloth and culture with the complex and colorful language of genetic data. She leverages humble craft methods associated with domesticity to create textile portraits, color patterns and sequences that metaphorically portray what she calls "our coats of many colors." Her deep inquiry into the more scientific realm of human identity invites us along and delivers not only exquisite aesthetic interpretations, but also a genetic literacy primer to inspire our own self-discoveries.

Inheritance

Robin Bennett, Senior Genetic Counselor

Genetics touches all of us. We all take pride in our heritage, and we may boast about characteristics that "run in the family." Conversely, concerns about family diseases that may be inherited can also lead to feelings of anxiety, guilt, fear of the unknown, or even relief if we discover that a particular disease is not strongly inheritable or we feel empowered to take preventive actions against a disease. The collaboration between myself, Ondrizek, and the University of Washington medical genetics physicians and researchers shows the beauty in our DNA and brings this art and genetic science to the public. This work provides an opportunity for dialogue between geneticists and the public to help allay fears and misconceptions related to genetics. Information about family history in conjunction with genetic testing can provide important information at many times throughout the lifespan: in planning pregnancies, in newborns and children, throughout adolescence and in adulthood. For families where DNA testing may not be as informative yet, the option of banking DNA (from blood or saliva) can be a gift to future generations.

Works From 2009-2012

Geraldine Ondrizek

This exhibition at the Kirkland Arts Center, curated by Gennieve Gaiser Trembley, allows me to present three bodies of work generated from my two-year collaboration with Robin Bennett and the Division of Medical Genetics at the University of Washington.

First are prototypes made for the 2011 University of Washington commission *Chromosome 17* and the piece created for the Portland Art Museum, *Case Study*. Both works use the National Center for Biotechnical Information (NCBI) database of the human genome as a resource to artistically map scientifically-derived gene sequences. The second work, *DNA Microarray*, located on the balcony, is formed from several large silk panels imprinted with the image of a DNA microarray. A microarray is a set of tiny DNA "spots": small chunks of DNA sequences known as "probes" that fasten to a glass or silicone chip. The probes identify target sequences of DNA, which are easily seen via fluorescence or chemiluminescence as red, yellow, green and blue dots that glow like a grid of stars in the night sky.

The third body of work, *Chromosome Paintings*, which spans the front window and wall, was made specifically for the Kirkland Arts Center. *Chromosome Paintings* is based on the image of a synteny map, a colorful, striped array that compares gene sequences and chromosomes between species. The long silk panels, each printed with human chromosome maps are arresting displays of fluorescent color arranged to stunningly depict chromosomal comparisons. Fuchsia neighbors chartreuse, purple sidles up to orange, soft grays mingle with blues. These juxtapositions spur the eye to dart between various color combinations and arrangements.

The origins of the word 'chromosome' comes from Greek khroma 'color' + soma 'body.' These panels, literally made up of different color combinations, physically manifest the 'color bodies' (or chromosomes). Chromosome paintings as representations of scientific data are optically stunning and will generate dialogues about vibrancy, complements, contrasts and tonal ranges of the color combinations, which parallel genetic variance, anomalies and similarities. The technique of chromosome painting, also known as "fluorescence in situ hybridization" can detect chromosomal abnormalities like translocations and structural alterations that are associated with various diseases. For example, chromosome 19 carries a gene implicated in leukemia. With these disease associations in mind, each panel is labeled with a type of cancer correlated with a genetic marker present on the chromosome.

Chromosome Light Boxes showcases each chromosome synteny map printed on white silk within a light box so the colors glow from within. These panels are marked with the genetic anomalies linked to different types of cancer found on each gene. The silk panels were also produced in a small edition of 10 each, and will be sold to raise funds for the University of Washington Cancer Genetic Medicine clinic for education and research, and specifically for those who have cancer and are unable to afford medical diagnosis and treatment. Additionally, the funds will benefit those who have cancer and would like their DNA to be preserved so their children and extended family can benefit from genetic testing will be given the chance to bank their DNA.

Biography

Geraldine Ondrizek received her BFA from Carnegie-Mellon University and an MFA from the University of Washington. She is a Professor of Art at Reed College in Portland Oregon. For the last twenty years she has created architectural scaled works which house medical and biological information. Since 2001 she has worked with geneticists and biologists to gather images of human cellular tissue and genetic tests relating to ethnic identity and disease. Ondrizek was the recent recipient of an Oregon Council and Ford Foundation Professional Development Grant for the creation and exhibition of *Chromosome Painting*. She has received the Stillman Drake Fund, the Levine Fund and Mellon Foundation Faculty Research Awards; in 2006 Ondrizek won the Oregon Council on the Arts Fellowship. She has been an artist in residence at CAMAC in France, Gasworks in London, the Women's Studio in New York, Kunstseminar in Schwäbisch Hall Germany, the Mattress Factory in Pennsylvania and the Anderson Arts Center in Colorado. She has lectured at Columbia College in Chicago, The Royal College of Art, Goldsmiths College in London, The University of Washington, and The Conference for Art and Society in Venice Italy. Her work has been shown at The Portland Art Museum, The Detroit Institute of Art, The Sheldon Museum, The Western Washington Gallery, The Sheehan Gallery at Whitman College, The IMSS Chicago, The Miller Gallery at Carnegie–Mellon University, the Hillwood Museum in New York, Pyramid Atlantic, The Wiesman Museum, The Museum of Fine Art Baltimore as well as other places. Reviews of her work have appeared in The Chicago Tribune, Art Week, Art News, the New York Times, The Oregonian, and the Sudduetch Zietung.

http://academic.reed.edu/art/faculty/ondrizek

Credits

Sewing and fabrication assistance,
Camille Charlier

Chromosome Painting, Figure 5
Jarllon, Aury, Petit, Thorman
Copyright Clearance,
Nature Publishing Group July 25, 2011

Photos by Dan Kvitka Photography

cover image:
Chromosome Painting, 2012
Window and wall installation spanning 32 ft.
Jacquard dye and dye sublimation, printed on ultra sheer and sheer silk
Panels, 14 x 108 in.

top left:
Chromosome Painting, 2012
close up studio shot

bottom right:
Chromosome Light Boxes 1-22 and X, 2012
Silk Crepe de Chine, Jacquard dyed and printed. Silk panels 13 x 69 in.
Light Boxes: fir, plexi, fiber optic lights
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