McCAIG INSTITUTE ARTS GALLERY

2025

“Innovative Impressions: The Fusion of Art & Science”

1

“The Threads of MSK Research”

Embroidery

By: Dragana Ponjevic
Histology & Microscopy Technician
McCaig Institute for Bone and Joint Health (University of Calgary)

"*The Threads of Research*" is an embroidered piece that captures the essence of the McCaig Institute for Bone and Joint Health Research. The various colors in each section of the knee represent distinct components of research. Yet, these colors work together to create a cohesive image, much like the researchers who collaborate to tackle complex questions in bone and joint health. By integrating the Institute’s brand colors, the outer circle of threads symbolizes the unity and connection of trainees, researchers, and staff dedicated to empowering mobility for life.

About the Artist:

Dragana Ponjevic is a Histology and Microscopy Technician of McCaig Institute. She has been with McCaig for over 16 years. Dragana specialty is processing of bone tissue for paraffin embedding, cutting tissue section and evaluation under the microscope. When she is not working, Dragana loves to do painting and watch/attend soccer games.

2

“Effects of Alpha Radiation”

Drawing with Beads

By: Monica Caicedo Roa
Postdoctoral Fellow
Department of Biochemistry and Molecular Biology (University of Calgary)

Radon is a radioactive element present in the air we breathe. It cannot be perceived by human senses (it is colorless, tasteless, and odorless) but radon is harmful to health when present in high concentrations in residential environments. This piece attempts to exemplify the effects of alpha radiation on lung cells by portraying radon as a villain with superpowers.

About the Artist:
Dr. Monica Caicedo-Roa postdoc in the University of Calgary specializing in Epidemiology and Public Health. Currently, she is a member of the Evict Radon National Study team. Her research centers on the impact of radon exposure on vulnerable populations. Dr. Caicedo-Roa leads a study aimed at assessing the effects of radon exposure on individuals with disabilities, with a focus on implementing effective prevention interventions for lung cancer caused by radioactive radon gas.

“Fractured Skull”

Mixed Media (Paper, Ink, Charcoal, Graphite)

By: Charlotte Hull
High School Student (Calgary)

This is a mixed media study using ink, charcoal and graphite, depicting a fractured skull. It represents ongoing scientific research into studying the human mind, with different approaches and theories overlapping, building on, and even contradicting each other as we continue to explore and learn. Similarly, just as this paper skull has been pieced together using many parts, researchers have collaborated among different disciplines to advance our knowledge and understanding over time.

About the Artist:
Charlotte Hull is a young artist who also studies animation and film making. She enjoys writing in her spare time and is very excited to include her new illustrated children's book, with its fusion of art and science, in this year's McCaig ARTS Gallery.

4

“Blade & Bones”

Ink on Paper

By: Tianyi Gao
Medical Student
Faculty of Medicine (University of Calgary)

A skeletal hand grips a scalpel, intertwining themes of mortality with the transformative power of science. The piece invites viewers to reflect on the delicate balance between life and death and how this interplay shapes our understanding of the world and drives human exploration.

About the Artist:
Tianyi Gao is a medical student at the University of Calgary who enjoys exploring diverse themes through a range of artistic mediums, from intricate pen drawings to vibrant paintings and sculptural forms. Her work reflects a love of creativity and experimentation, with each piece offering to explore new ideas and techniques. Art, for Tianyi, is a way to embrace precision and playfulness across mediums.

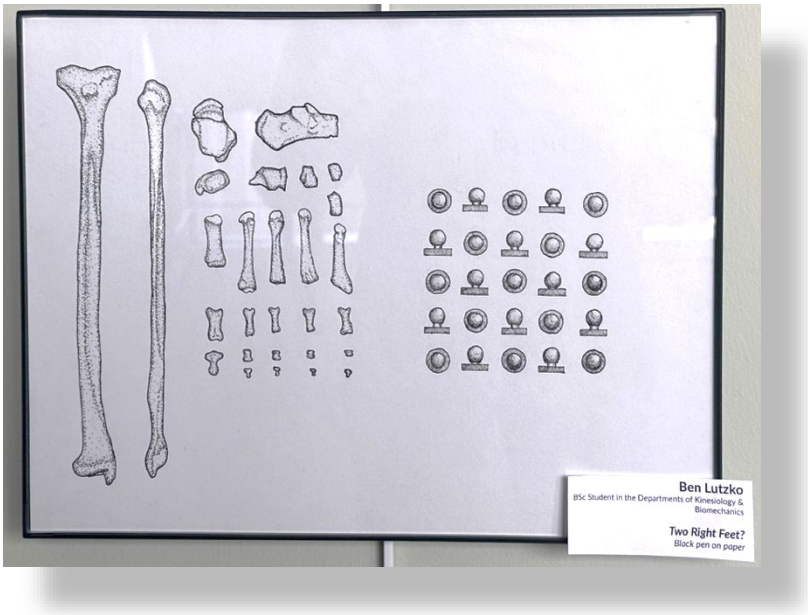
5

“Two Right Feet?”

Ink Drawing on Paper

By: Ben Lutzko
Undergraduate Student
Faculty of Kinesiology (University of Calgary)

The art piece *Two Right Feet?* plays on both the figurative expression “two left feet,” meaning clumsy, and its literal interpretation of there being two right feet. The drawing features two right feet depicted to scale and dissected side by side—one represented by bones, the other by motion capture skin markers. This juxtaposition highlights the elegance and ingenuity of scientific tools in replicating the foot’s structure and movement while emphasizing the irreplaceable complexity of the human body. By intentionally drawing two right feet instead of two left, the piece challenges the viewer to question whether this represents awkwardness or accuracy and invites viewers to ponder: Is this clumsy, genius, or somewhere in between?



About the Artist:
Ben Lutzko is a fourth-year Biomechanics student with a passion for blending science, sport, and creativity. He has completed two summer studentships at the McCaig Institute for Bone and Joint Health in the Clinical Movement Assessment Lab and is currently conducting his honours thesis on advanced footwear technology. With experience playing high-level lacrosse and hockey, Ben draws inspiration from his athletic and coaching background to inform both his research and artistic pursuits.

“Becoming”

Mixed Media

By: Nacim Ruintan-Tehrani
Artist (Calgary)

The metamorphosis of the Monarch butterfly is both a natural marvel and a precise biological process, a seamless morphing of form and function. This transformation follows a delicate cycle, balancing change and continuity in the natural world. The circular composition mirrors this intricate rhythm, emphasizing how each stage flows into the next. While metamorphosis is often seen as a moment of emergence, it is also a gradual progression, shaped by time, resilience, and unseen forces at work. Through my art, I explore these transitions, inviting you to witness the quiet power of transformation and reflect on the beauty of becoming.

About the Artist:
Nacim Ruintan-Tehrani is a multidisciplinary artist and designer based in Calgary, Alberta, Canada. She has a diverse professional background that spans across various domains in the field of art and design. Nacim holds three academic degrees, including a master’s in industrial design and a Post-Baccalaureate in Fine Arts from the University of North Florida. Deeply passionate about art in all its forms and limitless expressions, Nacim draws inspiration from nature’s infinite textures, colors, and shapes. Her paintings and mixed-media sculptures evoke an emotional connection to nature and its inhabitants, urging viewers to reflect on the beauty that is rapidly fading from our world. She embraces the creative challenge of experimenting with different techniques and materials, constantly seeking new and unexplored ways to express herself through her art. Nacim is a juried member of the Alberta Society of Artists and the Artpoint Gallery and Studios Society, and her artworks have been acquired by private collectors worldwide.

7

“Feeder Main”

Printed Generative Art

By: Rodrigo Dal Ben
Senior Research Analyst
McCaig Institute for Bone and Joint Health (University of Calgary)

In 2024, a huge puddle showed up at a Calgary intersection. A few hours later, the city found out that Calgary's Bearspaw South Feeder Main had a major water leak. After digging into it, they discovered the leak happened because of lots of small changes to the feeder’s structure over a long time. While trying to save water and wondering if this was a sneak peek at an apocalyptic future, Rodrigo couldn’t help but think of the parallel with our own "feeder main"—the spinal cord. We rely on it so much, but most of the time we don’t take care of it the way we should. Just like the water main – when neglected, small changes over time can lead to big problems for our overall health.

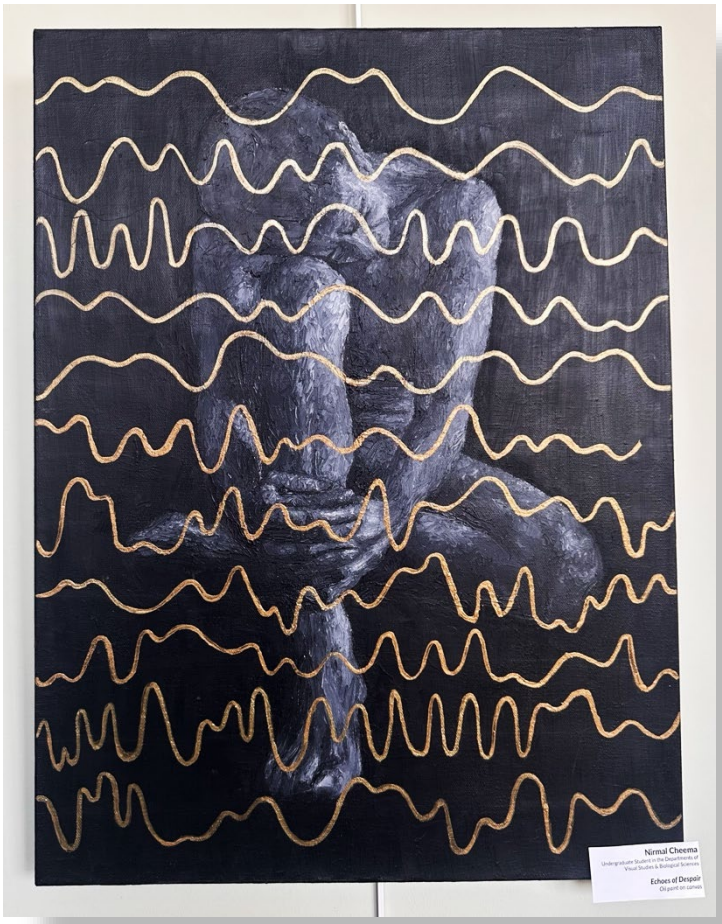
About the Artist:
Rodrigo Dal Ben is a Senior Research Analyst with years of experience using data to answer complex questions — from exploring how health conditions impact family’s quality of life to investigating the effects of bilingualism on infant cognition. Recently, Rodrigo has ventured into the world of generative art, using R statistical software to transform data into creative pieces. With packages like ggvoronoi, cropcircles, and magick, he showcases how accessible and fun open-source software can be for creating generative art from data. Rodrigo aims to show the hidden beauty in data and, hopefully, inspire others to explore the creative possibilities of coding and open-source tools.

8

“Echoes of Despair”

Oil Paint on Canvas

By: Nirmal Cheema
Undergraduate Student
Departments of Visual Studies and Biological Sciences (University of Calgary)



In the oil painting, a dejected man is depicted in black and white to emphasize feelings of loneliness and darkness. On top of the image are the brain waves of a depressed person, showing abnormalities, often with fewer alpha waves. This art piece combines artistic expression of sadness with a scientific visualization of the emotion. By merging these elements, the artwork aims to bridge the gap between the internal experience of depression and its observable and quantifiable manifestations. It invites viewers to reflect on the impact of mental health on the human condition.

About the Artist:

Nirmal Cheema grew up in India and moved to Canada at the age of 14, which allows her to draw commonalities among human experiences across the globe. Her artistic expression includes painting isolated figures in a monochromatic and realistic manner, with oil paint on canvas. She explores negative emotions, such as pain, anger, and loneliness, which are often challenging to express verbally. Her work does not intend to shock or offend but rather is an invitation to sit with, acknowledge, and experience these universal emotions rather than suppressing them. Ultimately, creating a space where individuals feel seen, understood, and safe to embrace the full spectrum of human emotions.

9

“Cycles of Renewal”

Acrylic Paint on Canvas

By: Muse Laroyia
Graduate Student
Hotchkiss Brain Institute (University of Calgary)

“*Cycles of Renewal*” reflects the diversity of human experience and its deep connection to the biological cycles that govern health and well-being. Through abstract faces and organic forms, the piece symbolizes the uniqueness of individuals and the shared processes that unite us, such as cellular regeneration. The vibrant palette and layered design mirror the complexity of the human body and its systems, highlighting the intersection of art and science as a tool to celebrate diversity and promote understanding of the universal nature of health.

About the Artist:

Muse Laroyia is a local artist and student passionate about exploring the intersections of art, science, and health. They have developed a reputation for producing visually captivating and unique pieces that engage and inspire audiences. In addition to their artistic practice, Muse is passionate about using their art to give back to the community, donating numerous paintings to NGOs to support meaningful causes and make a positive social impact. They are dedicated to celebrating diversity and showcasing how art can serve as a bridge between culture, science, and community.

“Chaser”

Watercolour on Paper

By: Sonia Rosenquist
Undergraduate Student
Departments of Visual Studies and Biological Sciences (University of Calgary)

‘*Chaser’* is a testament to Sonia's technical skill as an artist. This watercolour painting depicts gloved hands holding a sheep's heart, with one hand forming half of a hand heart. The piece delves into the complexities of human emotions. By depicting the immense love we can feel for another human being, feeling as though we would like to give them our heart, and the surface-level love we show through hand gestures. This piece was inspired by the lyrics of the song ‘*Chaser’* by Korean artist WOODZ: “*What you gave me was a plastic heart*.”

About the Artist:

Sonia Rosenquist is a student at the University of Calgary majoring in Visual Studies with a minor in Biological Sciences. She has a passion for learning about the human body and painting, which she showcases through her artwork by representing human body parts or organs primarily in watercolour or scratchboard. Sonia wishes to pursue medical illustration to provide patients with a clear understanding of their treatment and to make medical treatment less intimidating. Sonia works at the Alberta Children's Hospital, creating animations and illustrations for the Alberta Children’s Epilepsy Program and their virtual learning platform Knowledge2Empower.

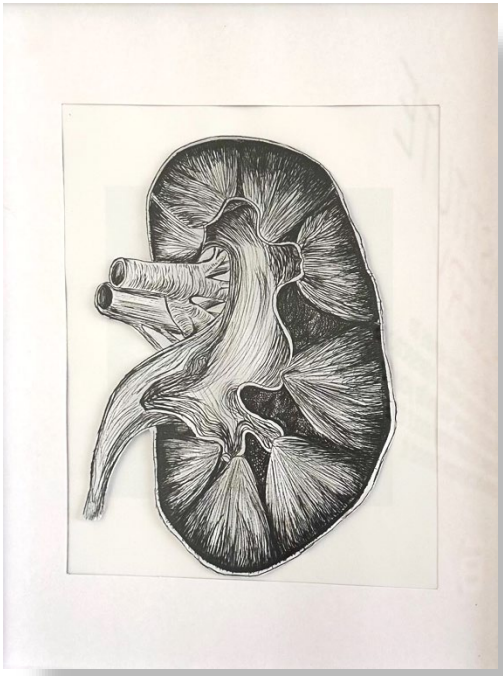
11

“Filtering System”

Ink Drawing on Paper

By: Nadia Bibi
Nurse Practitioner
Department of Nursing (University of Calgary)

Nadia has created an anatomically correct drawing of a cross section of the left kidney in the style of traditional depictions of cadavers. By using straight and fluid lines, she aims to create depth while highlighting different textures of a kidney's filtration system. To Nadia, this art piece represents her emotional processing of caring for patients with hepatorenal syndrome, on dialysis, and with renal impairment secondary to impacts of diabetes – as it allows her to reflect on the complex intricacies in the miracles of a kidney. She chose to create this piece in a traditional style as it lent itself to the idea of experiencing anatomy from a novice perspective, which she often relates to as a nurse in her first year of working in the hospital.



About the Artist:
Nadia is a newly graduated nurse with a Bachelor of Nursing and is affiliated with the McCaig Institute for Bone and Joint Health. She is interested in getting back into her passion for art and creation as she learns and grows in her work in the Internal Medicine field. She is currently most interested in creating anatomical drawings of various organs as this allows her to reflect on stories of patients behind medical diagnoses in a meaningful way to her.

12

“AI GENESIS”

Framed Digital Art

By: Amira K. Fadl
Graduate Student
Department of Biomedical Engineering (University of Calgary)

This artwork draws inspiration from Michelangelo's iconic "The Creation of Adam." However, it transcends the classical depiction of God giving life to Adam– as described in the Book of Genesis– transporting us into a contemporary narrative where humanity creates artificial intelligence (AI). This convergence of Man and Machine is guiding us towards new frontiers in scientific research, paving the way for a future where we unravel the mysteries of the brain and explore new realms, with science knowing no bounds. At the center of the artwork is a vividly detailed human brain, representing human intelligence and the focus of neuroscience research. On either side of the brain, we see two hands reaching for it. One arm is organic, symbolizing humanity, while the other is a robotic arm, representing artificial intelligence. The juxtaposition of the human and robotic hands underscores the collaborative potential between humans and machines. This visual motif echoes the famous gesture from Michelangelo’s fresco but reimagines it to reflect modern AI-driven scientific breakthroughs. The vibrant palette of neon hues and warm tones reflects the energy and dynamic of this new era, creating a visually striking contrast to symbolize the interface between organic life/biological intelligence and artificial intelligence. The title "AI Genesis" and the overall concept suggest a new beginning, a genesis of an era where AI is not just a creation but a partner in exploring the vast unknowns of the human brain and beyond.

About the Artist:
Driven by her passion for merging neuroscience, AI, and medicine, Amira is a young medical doctor and biomedical engineering PhD student at the Computational & Behavioral Neuroscience Lab (Cone Lab) at the University of Calgary. She is pursuing a specialization in Computational Neuroscience, focusing on unraveling neural mechanisms of sensory processing and perception. Beyond academia, Amira is an enthusiastic digital artist and graphic designer who finds inspiration in the fusion of art and science. She channels her creativity into enhancing science communication by actively collaborating with various scientific entities, making science more accessible and engaging.

13

“How To Make A Human”

Mixed Media

By: Vanja Kragulj
Artist (Calgary)

This artwork displays two spreads from Vanja’s recently published children's book, “*How To Make A Human*”, written by Clive Gifford, and published by Weldon Owen, an imprint of Insight Editions. In addition to the framed spreads, she has included the actual book (located in the McCaig ARTS Gallery cabinet). In this step-by-step guide, you will discover how art and science combine to tell the remarkable story of the human body! Perfect for curious minds of all ages.

About the Artist:
Vanja Kragulj is a Canadian illustrator, surface designer, and art educator. Her work spans children's literature, toys, and public art. She's collaborated with renowned publishers like Hallmark, Scholastic, Workman Publishing, and Highlights for Children. When she's not illustrating, Vanja teaches illustration workshops to children and adults in her studio and in collaboration with schools and other local organizations. Her workshops are often inspired by children's books, illustration, and graphic design.

“Gut Reaction”

Oil Paint on Canvas

By: Jana Ali
Medical Student
Faculty of Medicine (University of Calgary)

This piece captures the visceral intensity and precision of surgery, blending the raw beauty of human anatomy with the technical mastery of the surgeon. The chaotic sprawl of intestines across the surgical field symbolizes vulnerability and life’s complexity, while the poised hand holding the needle driver embodies control, skill, and determination. The interplay of vivid reds and soft flesh tones contrasts with the cool metallic tools, highlighting the duality of fragility and resilience in the human body. "Gut Reaction" invites the viewer to reflect on the delicate balance between chaos and order, and the emotional fortitude required to navigate it.

About the Artist:
Jana (she/her) is a third-year medical student at the University of Calgary with her heart set on surgery and a deep passion for women's health. When she’s not busy on the wards, attending spin classes, or working on her paintings, you can find her spending time with her adorable cat, Leukocyte, who brings a dose of cuteness to her life.

“Inner Child”

Cartoon

By: Maryam Mahdavian
Graduate Student
Faculty of Education (University of Calgary)

This cartoon illustrates how seniors in society can carry within themselves a sense of playfulness and happiness. It highlights the importance of encouraging and nurturing this joyful spirit, as it significantly contributes to enhancing their overall quality of life. In this cartoon, the old man imagines his walker as a slide on which his "inner child" plays.

About the Artist:
Maryam is a graduate student in adult learning. As a cartoonist, she uses cartoons as an educational tool to depict social issues and translate research findings into visual concepts. Maryam is really interested in creative teaching and learning through visuals for both adults and children.

16

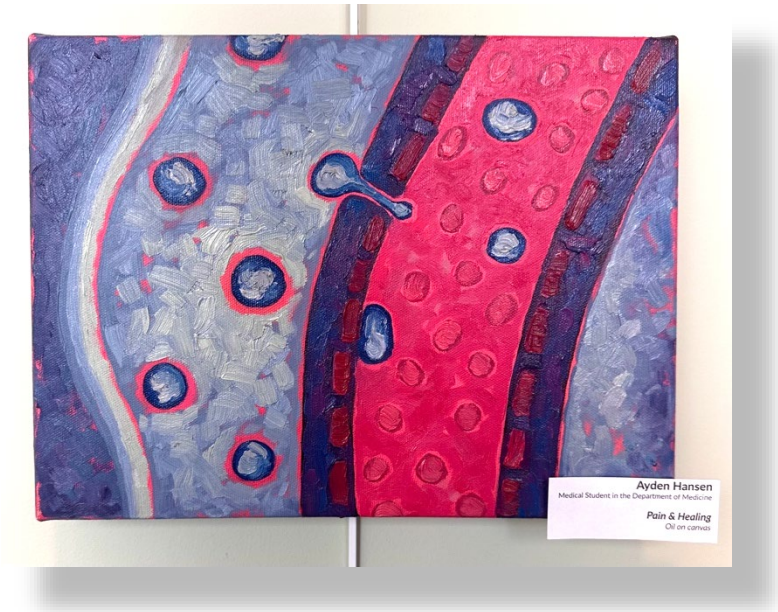
“Pain and Healing”

Oil Paint on Canvas

By: Ayden Hansen
Medical Student
Faculty of Medicine (University of Calgary)

This piece portrays the dynamic process of inflammation at the cellular level. Using vivid colors and abstract forms, the artist highlights the beauty and complexity of this biological response. The artwork encourages viewers to reflect on inflammation's dual role in both healing and disease, as well as its broader impact on health and medicine.

About the Artist:
Ayden Hansen is a first-year medical student at the University of Calgary. She has enjoyed oil painting since childhood, often drawing inspiration from the natural world. This marks her first time combining her artistic hobby with her passion for science and medicine.



17

“The Monotropic Mind”

Mixed Media on Canvas

By: Kaetlyn Phillips
Graduate Student
Department of Microbiology & Infectious Diseases (University of Calgary)

Monotropism is a psychological theory of Autism that describes a cognitive processing style in which few channels of attention are very deeply interacted with. In a non-monotropic mind, often seen in the neurotypical population, individuals interact more shallowly with a greater number of attention channels, easily switching between them. In opposition, the switching between channels of attention, or multitasking, in a monotropic individual can require a lot of energy and cognitive resources. The work attempts to communicate both the beauty and joy of immersing oneself in a monotropic tunnel, the hesitation to freely interact with attention from fear of being torn away and siphoning your energy, and the complex interplay with mental health and the risk of deep attention turning to rumination and obsession.

About the Artist:
Kaetlyn has a bachelor’s degree in biology with a minor in fine arts from the University of Waterloo. Here at the University of Calgary she is pursuing a master’s degree studying the impact of the gut microbiome on neurodevelopmental outcomes in preterm infants. Her artistic passion lies in translating the science and communicating personal experience on topics of neurodivergence and mental health.

“Microplanets”

Photograph Collage

By: Jessie Olson
Graduate Student
Faculty of Veterinary Medicine (University of Calgary)

Over the past nine years as a veterinary technician, Jessie has looked through the microscope, uncovering a hidden world that profoundly impacts animal health -- and our own. Jessie always envisioned looking through the microscope as peering into communities of organisms and cells in realms we are just beginning to understand. To capture this, she began photographing these microscopic worlds and placed the images against a space-themed backdrop to reflect the complexity of these communities and their significant effects on species on Earth. This fascination has driven Jessie to pursue a master’s degree in virology -- a realm even smaller than what we can observe under the microscope. Despite their miniscule size, viruses, bacteria, parasites and understanding the body's cells play a crucial role in life and society, highlighting the importance for scientists to continually explore the smaller worlds we share our planet with

About the Artist:
Jessie Olson is currently a second-year master's student focused on developing diagnostic assays to study viruses in Arctic caribou. With nine years of experience as a Veterinary Technician, she has traveled to the Arctic and Galapagos, providing spay-neuter clinics to rural communities. Additionally, she has a background in taxidermy, a craft that incorporates both biology and science. Throughout her diverse experiences, Jessie has discovered that the most effective way to make science and medicine more accessible to those outside academia is by incorporating the arts.

19

“Lab-Coats & Pysanky: Where Science Cracks Open Creativity”

Ukrainian Easter Eggs (“Pysanky”)

By:
Nicholas Perewernycky
Graduate Student
Department of Biomedical Engineering (University of Calgary)

Badra Abbas
Undergraduate Student
Department of Health Sciences (University of Calgary)

Camelia Ursu
Medical Student
Faculty of Medicine (University of Calgary)

Pysanky are intricately decorated Ukrainian eggs, created using a wax-resist technique that has been passed down for generations. Traditionally, pysanky symbolize cultural heritage, folklore, and the celebration of life through vibrant patterns and symbolic motifs. This piece is the result of a unique workshop where students from the sciences explored the intersection of artistic tradition and scientific creativity. Created by Badra Abbas and Camelia Ursu, the design merges traditional techniques with innovative, science-inspired patterns, reflecting how scholarly thinking and artistic expression can coexist. The fusion of complex patterns, ornamental design, and organic structures invites viewers to reconsider the boundaries between disciplines, showcasing how cultural art forms can evolve through new perspectives.

About the Artists:
Nick is a multidisciplinary student who thrives at the crossroads of creativity, culture, and curiosity. He believes that the best ideas emerge when different disciplines, perspectives, and traditions come together in unexpected ways. Last year, he led a Pysanky workshop, introducing highly talented students from the sciences to the delicate art of decorating eggs with fire, wax, and a healthy respect for gravity. The pieces displayed here are a testament to the blending of disciplines, showcasing how scientific minds interpret and interact with cultural heritage through art.

Badra is a biomedical sciences student looking to pursue graduate studies in neuroscience who mostly works with paints to create traditional art pieces. For Badra, art and science coexist, influencing each other and altering the ways in which people perceive the world and their place in it. She is fascinated by the rendering of scientific information into art, and by ways art is formed from nature.

As a medical student, Camelia emphasizes the value of the One Health approach to wellness, where we recognize that our health is directly tied to the more-than-human world around us and to our traditional knowledges. Art, be it visual, written, auditory, or anything in between, is often the best way to bridge that gap, which is why it is so meaningful to her work in medicine and in the Indigenous Studies department!

20

“Every One is a Wonder”

Illustrated Non-Fiction Book

By: Charlotte Hull
High School Student (Calgary)

While drawing these coloured pencil illustrations, Charlotte had the idea of creating a book for young children who are interested in art, science and nature. Published this year, “*Every One is a Wonder*” has two parts; the first, using rhyming verse to describe how wonderfully unique animals are; and the second, sharing fascinating facts and encouraging children to create their own art and discover more animal facts.

About the Artist:
Charlotte Hull is a young artist who also studies animation and film making. She enjoys writing in her spare time and is very excited to include her new illustrated children's book, with its fusion of art and science, in this year's McCaig ARTS Gallery.