



The Challenge

Individual Contributors



TJ Brunette *Protein Design*

Align to Innovate, Challenge Director, Seattle, USA

TJ did his postdoctoral work on de-novo protein design with David Baker and his graduate work in machine learning and robotics at UMass Amherst. Subsequently, he has spent two years getting protein design up and running at Emerald Clouds Labs (ECL) and works as a consultant to design proteins for several companies. He has implemented numerous complicated protocols at ECL including cell-free protein production and has mRNA display nearly completed. He is very excited about using robotics at ECL to reveal new biological insights using high throughput experimentation. His primary interests are protein design, deep learning, immunology, and robotics. In his spare time, he is a fan of yoga, hiking, mountaineering, gardening, and dancing. As part of the Align Programs he is eager to develop strategies for groups to share experimental methods that will help everyone develop experiments faster and more robustly.



Dana Cortade *Molecular Diagnostics*

Align to Innovate, Technical Project Manager, France

After graduating with her doctorate in Materials Science and Engineering from Stanford University, USA, Dana moved to France to continue her passion for innovation in scientific instrumentation. Her doctoral work focused on combating the opioid epidemic by engineering tools for small molecule opioid detection and investigating genetic contributions to the efficacy of opioid and nonpharmacological adjuvant treatments for pain management using giant magnetoresistive biosensors. She is passionate about science communication, science accessibility, and creating new avenues for scientific collaboration.



Sofya Lebedeva *Molecular Cloning*

Oxford University, United Kingdom

Sofya is currently taking a few months off before starting her PhD in Clinical Medicine at Oxford University. She will be studying the mechanisms behind a subtype of T cells called Tmics. Sofya is interested in leveraging cloud labs and open science practices to foster greater accessibility and reproducibility in her research and beyond. In her spare time, she is a fan of doodling, hiking and traveling. She is excited to bring her skills in community building to the Bioautomation challenge.



Michael Wheeler *Clinical Medicine*

Imperial College London, United Kingdom

Michael is currently completing his PhD in Clinical Medicine Research at Imperial College London. He is also working for Solena Materials, a protein materials company, as a senior bioautomation scientist. At the start of the pandemic, he developed a SARS-CoV-2 RNA standard and led a team from the London Biofoundry in developing an automated SARS-CoV-2 RT-qPCR diagnostic workflow that was utilized for front line diagnostic testing by North West London Pathology (an accredited NHS laboratory). Michael studied Clinical Medicine at the University of the Witwatersrand in Johannesburg, South Africa. He has extensive experience in diagnostics and automation, as well as experience in mammalian, yeast and prokaryotic synthetic biology. In his spare time he likes to compete in orienteering races and has competed internationally for South Africa.

