

UNIVERSITY ALLIANCE RUHR



Ruhr Fellowship Program

June 2 - July 28, 2022





Dear Ruhr Fellows,

I am delighted to welcome you to the fellowship in person after two years. In a “post-covid” world (if I may already use this phrase), the future of work has arrived faster than what we may have anticipated. Our challenges have exponentially multiplied, and we are faced with having to adapt to an evolving digital economy. Individuals, public & private entities, governments, employees, and employers are living with rapidly transforming digital behaviors and technological changes such as remote working-learning, telemedicine, and drone deliveries.

This year our program will spotlight the importance of constantly developing your individual professional skills and the entrepreneurial mindset required, against this backdrop of societal digital consumption. You will have the unique opportunity to meet with experts in our region who will provide a framework of insights to fine tune your transatlantic viewpoint; and participate in cultural activities that will offer you a different lens view to our region. Along with the above, it is the goal of our fellowship program to enable you to utilize this time to build your own international community.

We are at a milestone juncture in time where the fabric of how we live, work, and connect has fundamentally shifted. It is with this overarching view that you are invited to spend 8-weeks in Germany's Ruhr area, which is one of the European Union's largest megalopolises.

As history has shown, choices made during and after a crisis shape the world for decades to come. We strongly hope that during your time here, you will see the critical need for collective action, building multilateral partnerships, fostering community, enabling inclusive growth, and finding innovative and sustainable tools that empower and enrich communities.

We are much stronger together! With that, I would like to once again welcome you to your 2022 Ruhr Fellowship!

Priya S. Nayar



Priya S. Nayar
Executive Director
UA Ruhr New York



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University Alliance Ruhr

The academic hub for research, teaching, studying, and networking in Germany's vibrant Ruhr area

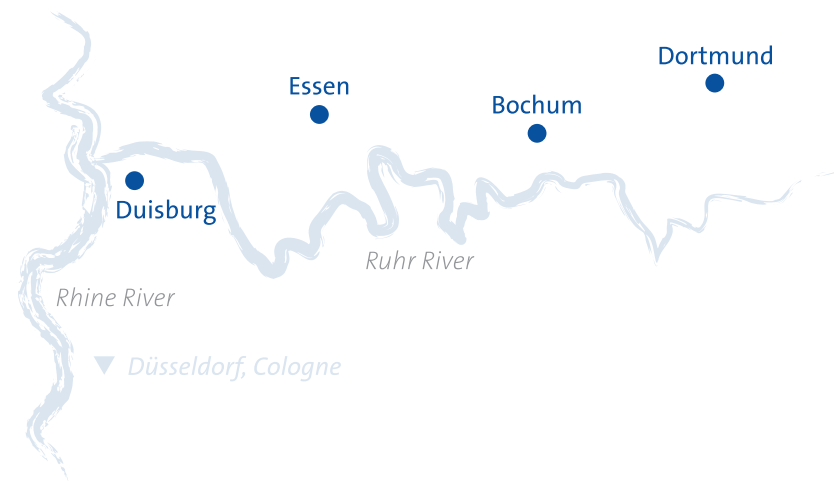
The University Alliance Ruhr is an alliance between Ruhr University Bochum, TU Dortmund University, and the University of Duisburg-Essen, the three largest universities in Germany's thriving Ruhr area. Each of our institutions has a strong tradition of breaking down walls between disciplines. We believe in the benefits of collaboration on all levels of scholarship and research, which is one of the reasons we came together in this unique university alliance.

More than 120,000 students, of which 19,000 are international, as well as over 14,000 researchers study and work within the UA Ruhr universities.

Together, the three universities have 850 partnerships with universities in over 130 countries, which provides our students and researchers with virtually unlimited possibilities for exchange and resources for development. To support our already strong global network of international exchange and collaboration, UA Ruhr has also created academic liaison offices for North America and Russia.

The Ruhr area is not only Germany's largest academic hub, but also an epicenter of innovation that fosters close interaction between academia and the private sector – and our alliance provides students and researchers from around the world with an open gateway to our region.

We invite you to learn more about the UA Ruhr alliance and our universities, and we look forward to welcoming you in the Ruhr area soon!





Bochum: Schlossruine Weitmar und Sylvesterkapelle

Program Focus Topics

Innovation and Entrepreneurial Mindset

We will find out what it takes to be an entrepreneur and how you can discover, assess and further develop your strengths. We will learn how to define a problem, work on live case models, practice pitching and develop business models. Throughout this course, we will connect with entrepreneurs and discuss with them what it takes to translate your idea into a business and reach global impact.

Business Communication

Within an organization and when interacting with supply chains and clients, effective communication is essential to the sustainability of a business. We will be discussing the skills and strategies to ensure everyone is consistently working toward common goals and that critical

information is shared to make those goals attainable. We will also cover communication boundaries, such as geographic, cultural, and technological.

Innovation/Technology

As technological change continues to accelerate and market demand changes, innovation is critical to a business's success. How does an organization decide what technologies to concentrate on, what products and services are ripe for innovation, and how change will be received by the market? What are the aspects of the German and American markets that drive innovation, and how do companies adapt to different demands when serving different markets?

Ethics/Diversity

The long and continuing history of relationships across cultures is an important context for all business considerations. When managing a diverse workforce and presenting products and services to a broad market, ethical practices not only ensure a business is perceived as a community partner but also provide a more stable foundation for long term sustainability. We will discuss best practices and personal experiences as perspectives have evolved in Germany and the U.S.

Organizational Management

As businesses grow, the complexity of operations requires careful and intentional guidance in order to compete effectively. Managers can implement various strategies to address challenges as they arise, but a culture of continuous improvement

can position a company to respond nimbly to issues that may not yet be visible. We will consider how company leaders balance risk and opportunity in changing environments and multinational markets.

Labor Laws/Labor Relations

Labor laws continue to develop in both Germany and the U.S. as employers, employees, and governments coordinate toward safe and successful workplaces. Collective bargaining organizations (unions) can play a major role in representing the needs of workers. Companies often work with advisors to ensure they have the best understanding of their obligations and what may be subject to change. We will discuss the current state of labor relations as well as development worth paying attention to.



John Brockett



Maura Campbell



Participants

John Brockett

John is a rising junior at Yale University majoring in Math and Economics, as well as History with a concentration in the European region. This past year, he worked on a research team studying the Pharmaceutical and Biotech industries, and is more broadly interested in the intersection of finance and medicine. In the past, he has done a variety of internships in finance, education, and music, and has spent much of his time volunteer tutoring. He is excited to improve his German, as well as explore the Ruhr region.

Maura Campbell

Maura is a rising junior at Lehigh University in Bethlehem, Pennsylvania majoring in History and minoring in German, Spanish, and Latin American Studies. Additionally, Maura is a four year national scholarship awardee in the Reserve Officer Training Corps. Upon graduation, Maura will commission as an officer in the U.S. Army, and hopefully, continue her studies in language in order to make herself a successful law enforcement officer. In the program, she wants to expand her understanding of Europe immigration systems and the ensuing effects of the displacement of people groups across Europe from a historical perspective.

Specifically, Maura wants to better understand the challenges that face immigrants so she can facilitate reparations in those relations in the United States. In her free time, Maura enjoys working out, cooking, and reading.



Ilias Chekkori



Tina Chen



Xinyi Cui

Participants (continued)

Ilias Chekkori

Ilias is rising junior majoring in Computer Science and Engineering and minoring in Electrical Engineering at Lehigh University. Originally, he is from Rabat, Morocco, and has a passion for marine robotics. He has been lucky enough to be part of multiple research groups focusing on creating autonomous underwater vehicles. His interest in underwater vehicles stems from his obsession with the oceans' uncovered mysteries. As Software Lead of Lehigh Underwater Robotics, he guides a team of 12 talented students to develop software to allow an underwater vehicles to navigate fully autonomously. With this project, he participated in the *RobosubNation* competition.

He is also part of a research group focused on creating fishlike robots capable of mimicking the swimming patterns of blue fish tuna. He and his team recently won the MURI award and \$7.5M from the department of defense for our research on our development of fast and efficient bio-inspired underwater vehicles.

He hopes that one day he will be able to create software to allow us to deploy thousands of autonomous underwater drones in the sea to discover the rest of the 80% we haven't explored.

Tina Chen

Tina is a rising junior at Harvard University studying Chemistry and English while pursuing a language citation in Chinese. Originally from New York City, she is passionate about the intersection between urban development and the natural environment. Last summer, she conducted research on the impacts of tropospheric ozone on crop growth in South Korea with the Atmospheric Chemistry Modeling Group. At Harvard, Tina writes for *The Harvard Crimson* and serves as a board member for the Harvard Radcliffe Asian American Association. In her free time, she enjoys reading, journaling, cooking, and going on nature walks.

Xinyi Cui

Xinyi is a senior at Lehigh University, majoring in Accounting and Business Information System as well as minoring in German. She comes from Jiangsu, China. At school, Xinyi is working as a Residence Assistant and a business communication peer consultant, aiming to develop an inclusive and supportive Lehigh community. Besides, she has collaborated with a global team on a consulting project to assist a start-up entity design the business strategies and supply chain management. Xinyi likes reading and listening to music and her goal for this program is practicing her language skills and acquiring a global eyesight on worldwide trade.



Alexandra Griffith



Zoe Hsu



Participants (continued)

Alexandra Griffith

Alexandra is a rising senior at Yale University majoring in Environmental Engineering and pursuing a certificate in Energy Studies. She is from Keyser, West Virginia, and she is grateful for the perspective her upbringing in Appalachia provides in her environmental work and studies. She has worked as a research assistant on the Fugitive Methane Team at the Yale Carbon Containment Lab and has also served as a team leader at the Yale New Haven Hospital Carbon Inventory Project. In the program, she is excited to learn about international perspectives on energy and the environment.

Her interests include hiking, biking, dancing, doing puzzles with her friends, and learning about labor

Zoe Hsu

Zoe is a rising junior at Yale University studying Political Science and History, and pursuing Certificates in German and Computer Programming. She is interested in the intersection between technology and public service, and hopes to explore civic technology to build products that support immigrant and low-income communities. She previously served as Yale's youngest Student Body Vice President and studied human-agent interactions as a research assistant for the Yale Interactive Machines Group. She's an avid fan of Marvel and finds joy in trying new food and exploring different cities.

Partners (in alphabetical order)

We would like to thank our partner companies and organizations for their support in providing our students with the opportunity to gain valuable hands-on experience in a range of industries in the Tri-State area.



The Auslandsgesellschaft.de e.V. (Institute for International Relations North Rhine-Westphalia) was a civic initiative created in 1949 by a dedicated group of people. It was born out of the trauma of the Second World War and sustained by a desire for understanding. These roots shape its goals to this day: commitment to understanding between people based on humanity and tolerance. The institute builds bridges between people of different origin, between nations, social orders and cultures. It has around 750 members, many of whom work voluntarily to achieve the association's goals. There are four areas of activity: foreign institute, language courses, political education and international exchange as well as events on cultural or political topics.

www.auslandsgesellschaft.de

City of Dortmund
Economic Development
Agency



Welcome to Dortmund!

Like almost no other German city, Dortmund has seen enormous change in recent years. The former "steel city" developed into a modern and cosmopolitan metropolis, acquiring reputation all across Europe as an innovative location for technological development. Start-ups, spin-offs and technology companies in close proximity of TU Dortmund University grow in one of Europe's largest technology parks with more than 10,000 employees, more than 300 companies at the location Dortmund. But the biggest city in the Ruhr Area also scores with a wide range of possibilities in the cultural and sporting sectors, with extensive greens and a high quality of life.

www.dortmund.de



The Emschergenossenschaft (Emscher Water Management Association) was founded on December 14, 1899, and was the first German water board. It later inspired the foundation of several other water boards, among them the Lippeverband, which was founded on January 18, 1926.

Our activities in the Emscher region can be traced back over 100 years. Drawing on the vast experience gained during this time, we are able to offer services for the specific needs of the people and the commercial development of the Emscher river catchment area. As a public corporation, the Emschergenossenschaft is supported by its members: cities, municipalities and mining and business partners.

www.eglv.de



The Business Metropole Ruhr GmbH (BMR) develops and markets the Ruhr metropolitan area as an economic region. It bundles the economic interests of the 53 towns and cities in the area. This includes implementing and continuously evolving an overall economic strategy for the Ruhr metropolitan area as well as promoting the image of the area as a high-performing and innovative region, both nationally and internationally. As the economic development agency for the region we advise, market and realise projects that promote the Ruhr metropolitan area as a place to do business. For that we are active in five different areas: internationalization and location marketing, site and investor service, project development in the lead

www.business.ruhr

markets, funding and innovations as well as structural policy issues. The goal is to enhance the competitiveness of the Ruhr region.

Partners (in alphabetical order)



The Technische Universität Dortmund (TU Dortmund University) has a special profile with 17 faculties in natural and engineering sciences, social and cultural studies. The various disciplines are united by a common university spirit that is all about interdisciplinarity and cooperation. The teaching program includes about 80 degree programs, including wide-ranging teacher training for all school types. In research, TU Dortmund University is particularly strong in its four profile areas:

(1) Materials, production technology and logistics, (2) chemical biology, drug research and process engineering, (3) data analysis, modeling and simulation, as well as (4) education, schooling and inclusion.

www.tu-dortmund.de/en



World of Walas believes that cities start with people. With new ideas for old buildings and sound business practice, we create places where people want to live, work, produce and participate. Finding that balance in ways that are economically, environmentally and socially sustainable is a unique challenge every time. We engage in all aspects of urban development, which means more than real estate and area development. Urban development brings the activities, wishes and interests of people and cities together for a vital and lively whole. We've proven this leads to multiple value development: economic, social, cultural, sustainable, ecological and financial.

www.worldofwalas.com



As a center of excellence, the Zentrum für Logistik und Verkehr (Center for Logistics and Traffic) (ZLV) dedicates itself to the interdisciplinary conception, management and transfer of scientific work from across the University in the areas of logistics, mobility and traffic. Further areas of interest include concepts for energy efficient transport, the application of operations research in companies, the integration of urban structures and traffic in land use planning, the creation of logistic systems for humanitarian aid as well as research into the development of long-term sustainable, economically conducive, socially acceptable and ecologically reliable innovations (sustainability research).

www.uni-due.de/zlv

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