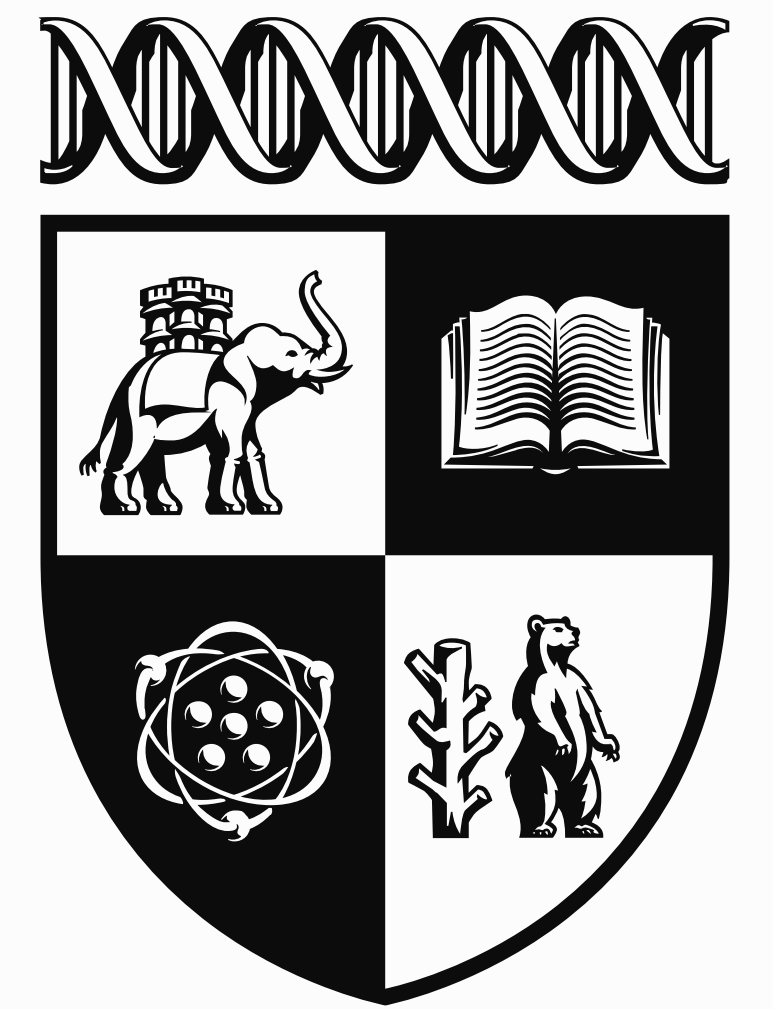




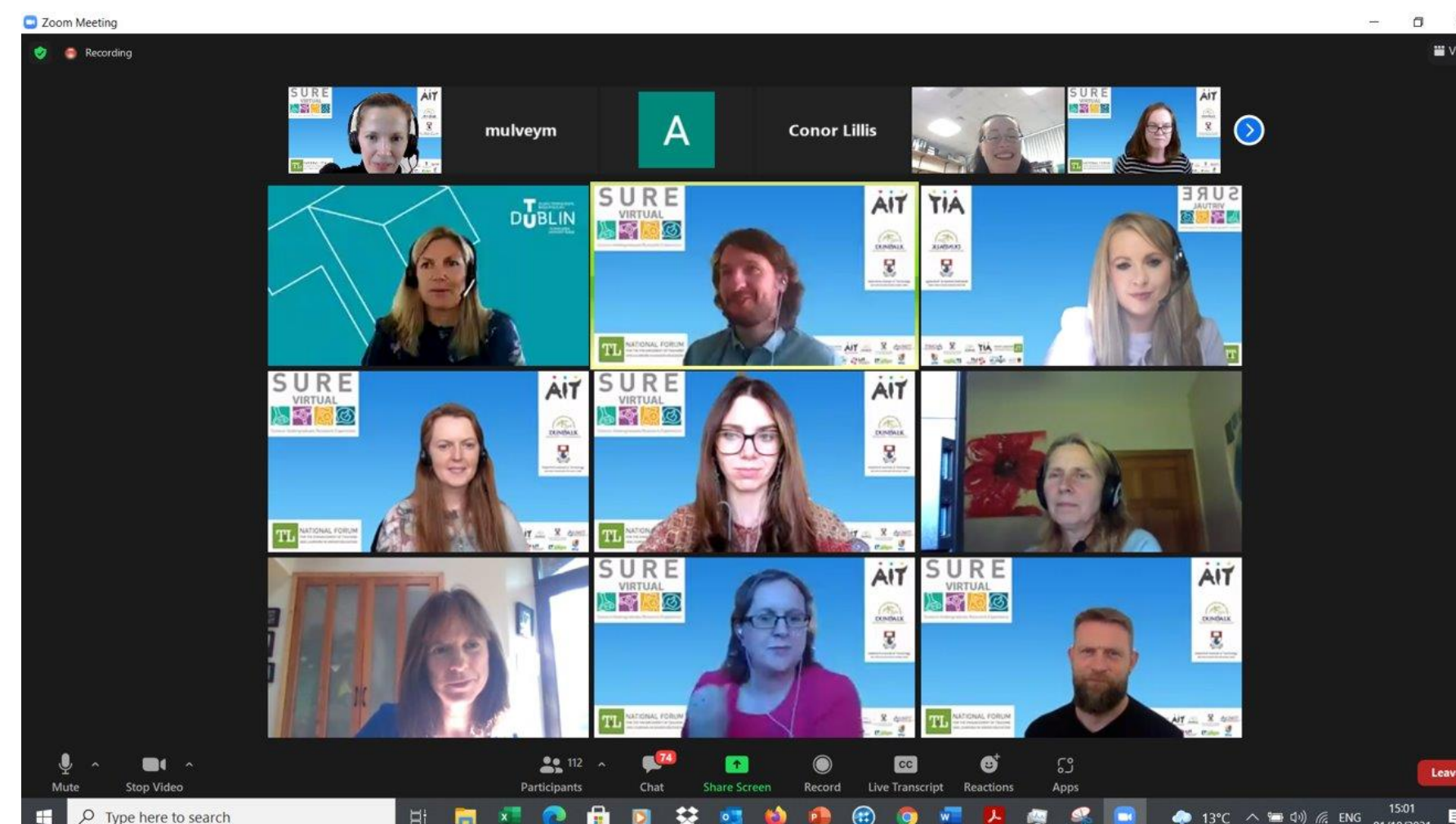
Pioneering National and International Networks in Undergraduate Research

Thérèse Montgomery, Harald Mieg, Paul Taylor, Jane Bryan,
Emma Barker, Caroline Gibson

SURE



Science Undergraduate Research Experience




**The Education
Awards 2023**

WINNER

**Career Impact
Strategy Award**



What is the Irish SURE Network?

- Multi-institute, voluntary, academic partnership established in 2016
- committed to the enhancement of undergraduate research practice in STEM.
- 34 members national SURE Network Committee
- 6 Institutes of Higher Education
- ~70 academics involved in network activities nationally



NATIONAL FORUM
FOR THE ENHANCEMENT OF TEACHING
AND LEARNING IN HIGHER EDUCATION

<http://sure-network.ie/> or contact therese.montgomery@atu.ie – SURE Network chair

SURE NETWORK OBJECTIVES:

Building Research capacity through UG research



Share Resources

- Provide a shared space where resources can be exchanged, disseminated and stored for use by both staff and students.
- SURE Network website

Community of practice (COP)

- Form an academic community where connections can be formed on a national and/or regional basis to enable the establishment of inter-institutional initiatives.

Collaboration & Networking

- Provide a platform from which academic staff can collectively apply for sponsorship, funding etc. to establish new initiatives in research promotion

Research Awareness

- Promote undergraduate (UG) awareness of the breadth and diversity of research topics that can be pursued through final year projects (FYP) and postgraduate projects

Graduate attributes

- Promote the continued development of key graduate attributes
- To ensure critical thinking, problem solving and evidence based-research are enhanced (not replaced) by GenAI

Celebrate UG success

- Acknowledge, promote and encourage UG research by showcasing at a national level through conference and journal platforms, motivating the next intake of year 4 students

The SURE Network



Póstaeir san
Oireachtas



SURE CONFERENCE:

7 CONFERENCES, 17 HOSTS;
490 STUDENT PRESENTERS;
3000 ATTENDEES; ANNUAL
ORAL AND POSTER PRESENTER
WORKSHOPS; POST-
GRADUATE OPPORTUNITIES
WORKSHOPS; 25 POLITICAL
AND INDUSTRIAL KEYNOTES



SURE JOURNAL (SURE-J):

SURE NETWORK
UNDERGRADUATE RESEARCH
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<http://sure-network.ie/> or contact
therese.montgomery@atu.ie



SUREBYTS –

INTERACTIVE VIDEOS FOR
EARLY RESEARCH
ENGAGEMENT, ONLINE OPEN
ACCESS WEB RESOURCE

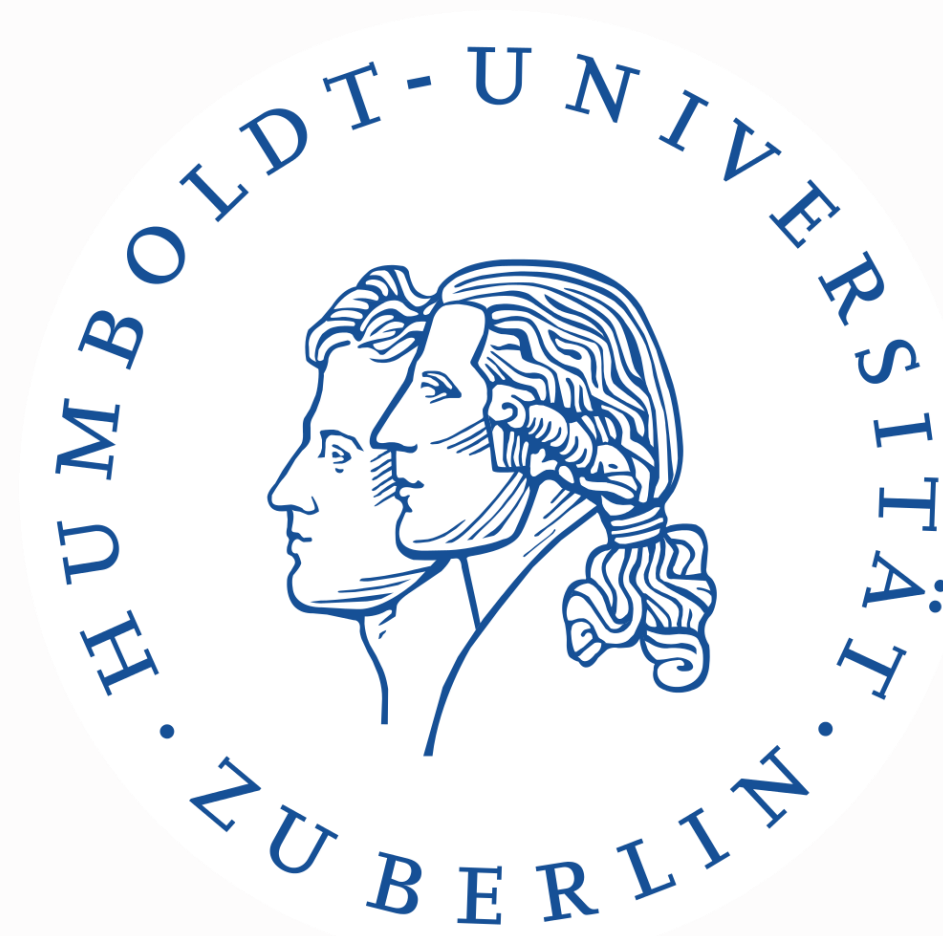


PÓSTAEIR SAN OIREACHTAS
(POSTERS IN PARLIAMENT,
IRELAND) – 28 STUDENTS
FROM 14 HEI AROUND
IRELAND PRESENTING TO
MINISTER FOR HIGHER
EDUCATION, LEINSTER HOUSE,
IRELAND 12TH NOV 2025.

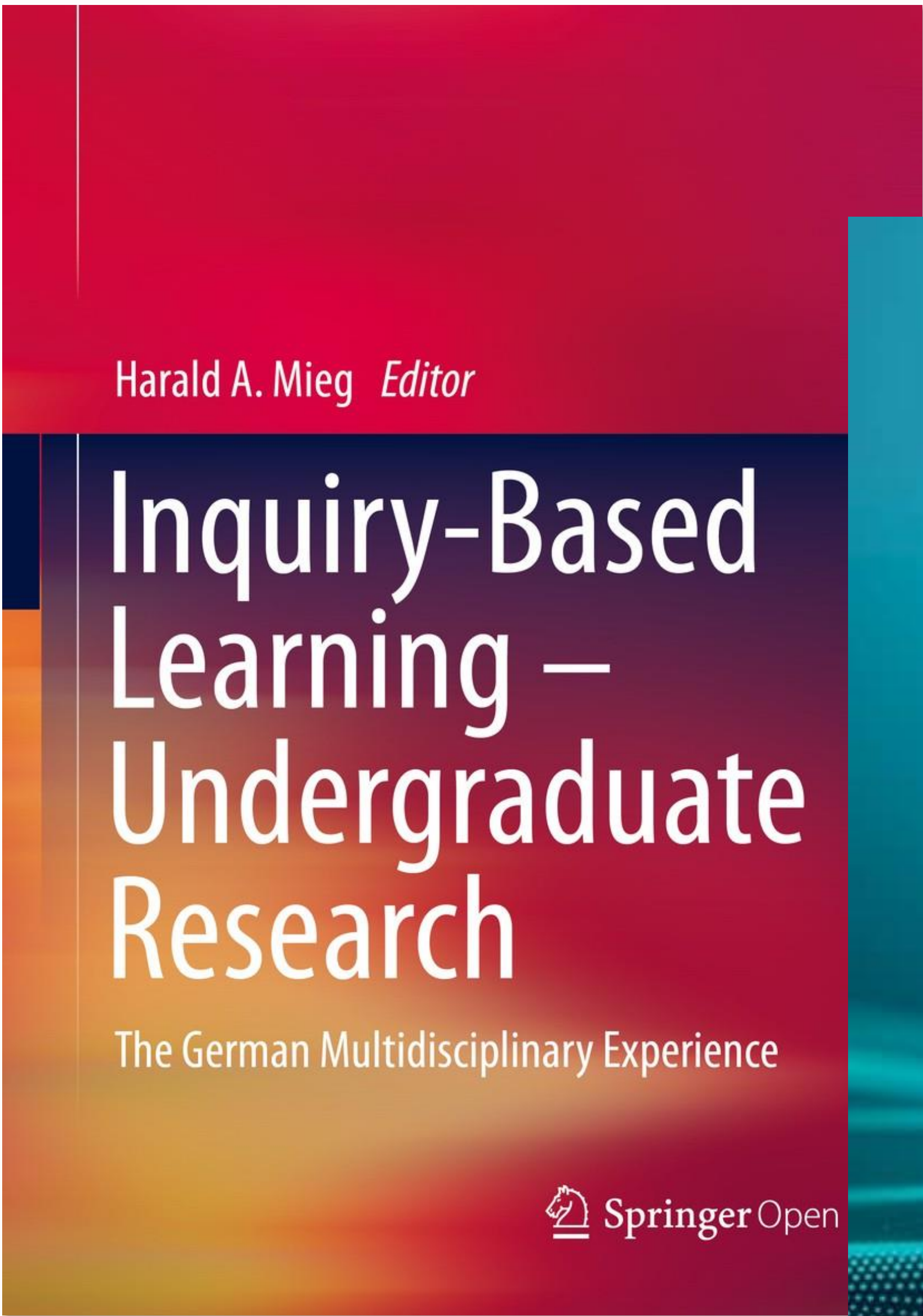


Harald A. Mieg

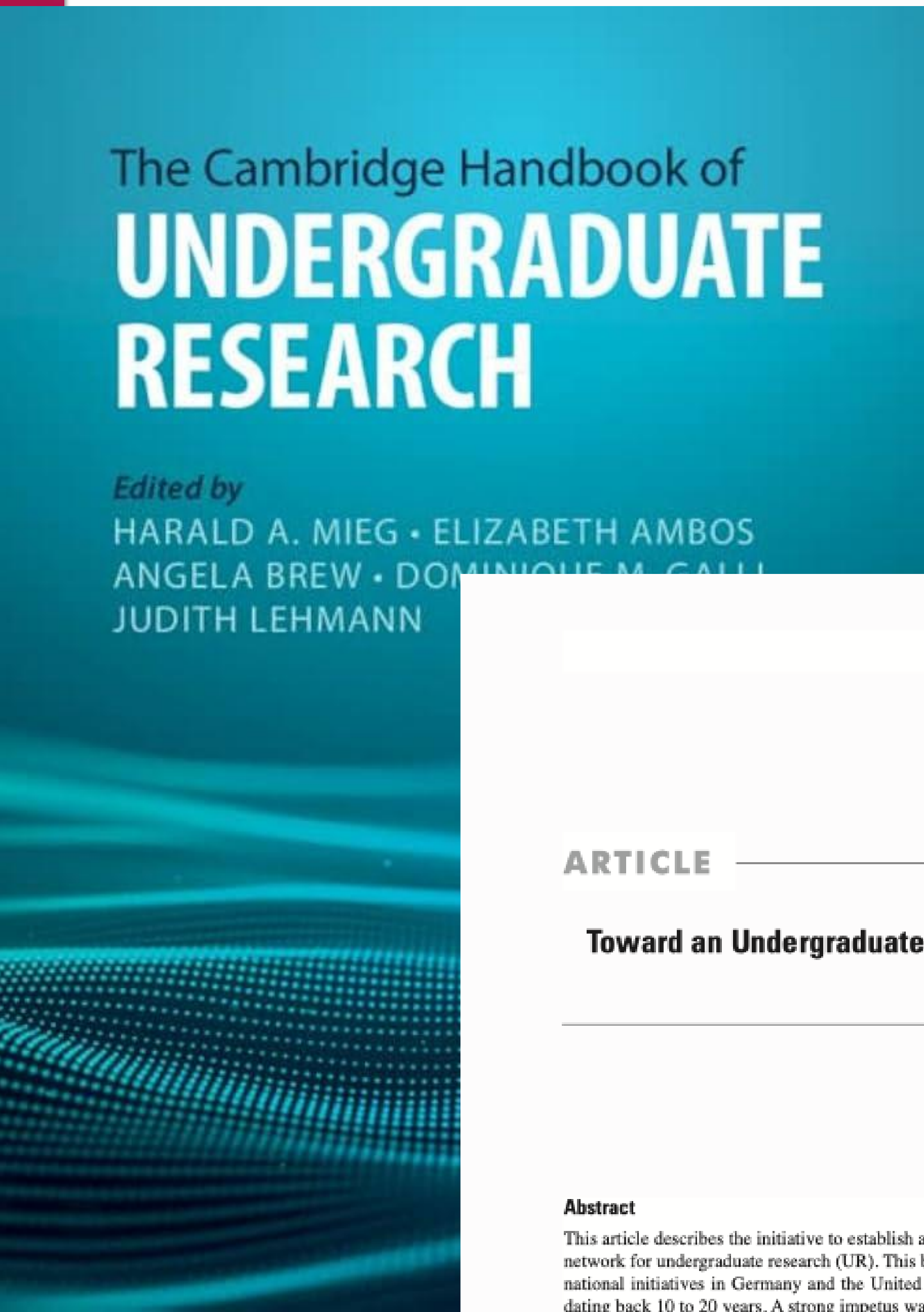
Humboldt-Universität zu Berlin



Mieg (2019)



Mieg et al. (2022)



Toward an Undergraduate Research Network in Europe and Beyond

Harald A. Mieg, *Humboldt-Universität zu Berlin, Germany*
Femi Odebiyi, *LCC International University, Lithuania*
Susanne Haberstroh, *University of Oldenburg, Germany*

ARTICLE

Toward an Undergraduate Research Network in Europe and Beyond

Harald A. Mieg, *Humboldt-Universität zu Berlin, Germany*
Femi Odebiyi, *LCC International University, Lithuania*
Susanne Haberstroh, *University of Oldenburg, Germany*

Abstract

This article describes the initiative to establish a European network for undergraduate research (UR). This began with national initiatives in Germany and the United Kingdom, dating back 10 to 20 years. A strong impetus was given by the European project on digital UR (2021–2023), which also was a response to COVID-19 and extended the possibilities of digital UR for cross-cultural collaboration. The next step should be to seize the postpandemic opportunity to advance UR in Europe through new hybrid pathways, with stronger links to national and European policies.

Keywords: *inquiry-based undergraduate research, international undergraduate research, online undergraduate research*

doi: 10.18833/spur/7/3/2

In Europe, there are some nationwide initiatives and networks for undergraduate research (UR), such as the British Conference of Undergraduate Research (BCUR, founded in 2010), the Science Undergraduate Research Experience (SURE; SURE 2024) in Ireland, and the German Standing Group on Research-Based Learning (AG FL; DGHF 2024). In addition, several university associations in Europe explicitly support UR (e.g., Angouri 2021; Fung, Besters-Dilger, and van der Vaart 2017), such as the League of European Research Universities (LERU 2024), and the Guild (The Guild 2024), a European association of research-intensive universities. However, there is not yet an active institutionalized network for the promotion and support of UR at the European level. This is due to the

diversity of language and educational systems in Europe. This article describes the authors' efforts to establish such a network in Europe. The historical background of the European network is reviewed, focusing on the authors' experiences with inquiry-based learning in Germany. The article concludes with reflections on building a sustainable European network for UR.

Inquiry-Based Learning in Germany and Transnational Undergraduate Research Networks

Europe has a vibrant university landscape with many innovative initiatives for the reform of university teaching, such as problem-based learning in the Netherlands (Burke 2020; Dolmans et al. 2005), active learning in Scandinavia (Christersson and Stauf 2019; Elken and Wollscheid 2020), and transdisciplinary, sustainability-oriented teaching in Switzerland (Scholz et al. 2006). Our focus on Germany is due to the fact that, since the 19th century, universities there have been fundamentally understood as research universities, and research and teaching have always been linked (Clark 2006; Deicke and Mieg 2020; Tight 2016). This connection is associated with the name Wilhelm von Humboldt and his plea for “Bildung durch Wissenschaft,” or education through scholarship (the standard translation is “research-based education”; Haverhals 2007). For this reason, university degrees in most subjects (with the exception of medicine and law, which lead to professional qualifications) have traditionally required students to carry out their own research.

Humboldt and Inquiry-Based Learning

Building on this tradition, an initiative for inquiry-based learning has gained momentum in Germany over the past

Erasmus+ Cooperation Projects

digiUR (www.digiur.eu, 2021–2023): In what ways can undergraduate research be conducted digitally / online?

Partners: University of Oldenburg; Université Paris Cité; University of Vienna ; LCC International University, Lithuania; University of Warwick.

Associated partners: PH Luzern; CUR; Universitat Oberta de Catalunya, Barcelona; Humboldt-Universität zu Berlin

Posters in Brussels (www.postersinbrussels.eu, 2024–2026): In fall 2026, undergraduates will present their research at the European Parliament.



Partners: University of Oldenburg; Atlantic Technological University Galway; LCC International University, Lithuania; University of Luxembourg; University of Vienna

Associated Partners: Berlin University Alliance; CUR; University of Warwick; Brussels Representation of the State of Lower Saxony

Building up a European UR network

<https://digiur.eu/the-european-ur-network-project/>



British Conference of Undergraduate Research



2011 UCLAN

2012 **Warwick**

2013 Plymouth

2014 Nottingham

2015 Winchester

2016 Manchester Met

2017 Bournemouth

2018 Sheffield

2019 South Wales

2021 **Leeds** (virtual)

2023 Warwick

2024 LSE

2025 Newcastle

2026 Glasgow

2027 Queen Mary

2028 Essex



inclusive
innovative
interdisciplinary
international
active
teaching
learning

- ca 4000 students attended to date
- completely multidisciplinary
- a proper academic conference
- research carried out as a UG
- **supportive research culture**
- many universities fund attendance
- abstract resubmission supported
- training on conference culture
- trained student session chairs



Research on Leeds alumni who had attended BCUR

A good first experience (David).

A supportive environment. A stepping stone, but also a broad [multidisciplinary] experience' (Matt)

It was nice to see it all come together – to work out what's really important (Sarah)

The culmination of my research [...] I was really proud and excited (Veronica).

When asked to reflect on their entire programmes of study all four participants rated only their voluntary research experiences and additionally their field trip or industrial placement as high impact.

None selected their assessed final year projects!



LinkedIn testimony from delegates to BCUR2025 Newcastle

I am immensely appreciative of the chance to interact with such a diverse array of intriguing research and to establish connections with others who share my enthusiasm for bringing about significant change. (Farees, QMUL)

It was amazing to share our findings with such a vibrant and knowledgeable community. I'm grateful for the chance to learn from and connect with fellow researchers, besides the opportunity to learn [from] other's research (Ana, Warwick)

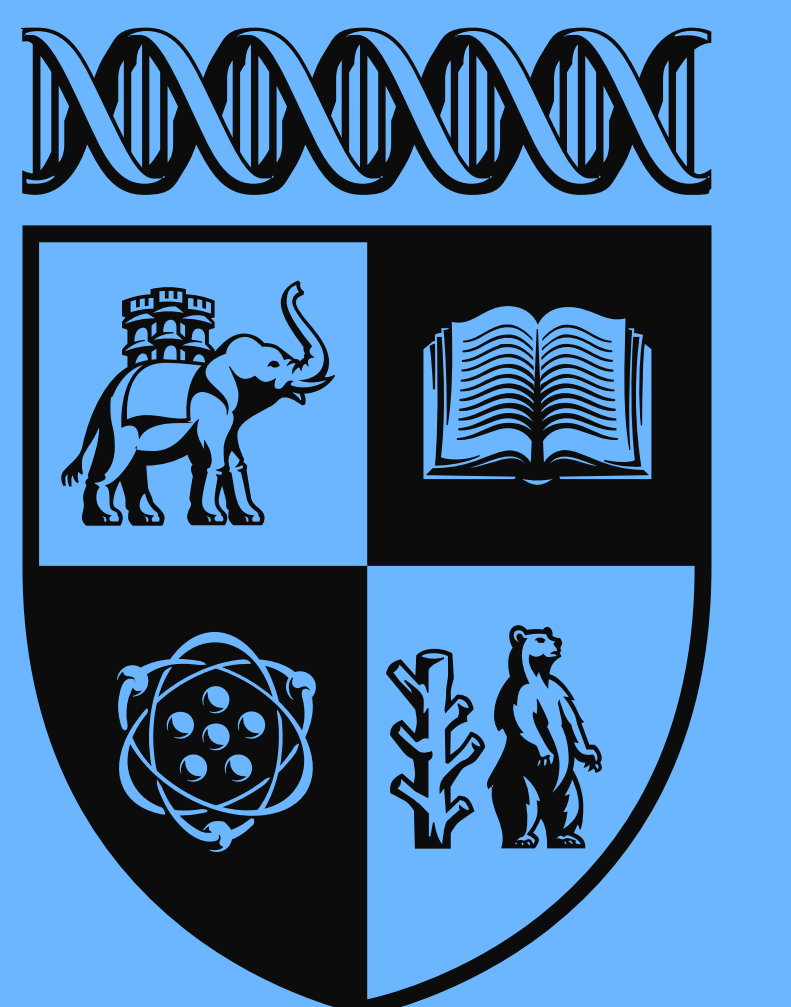
It was an incredible experience to engage with fellow researchers from across the UK, all working on urgent and complex issues [...] tackling real-world challenges across disciplines (Roxana, Leeds)

Thankyouuu so much BCUR for giving me this opportunity to speak and network with a diverse variety of people! 😊 (Anouka, Newcastle)



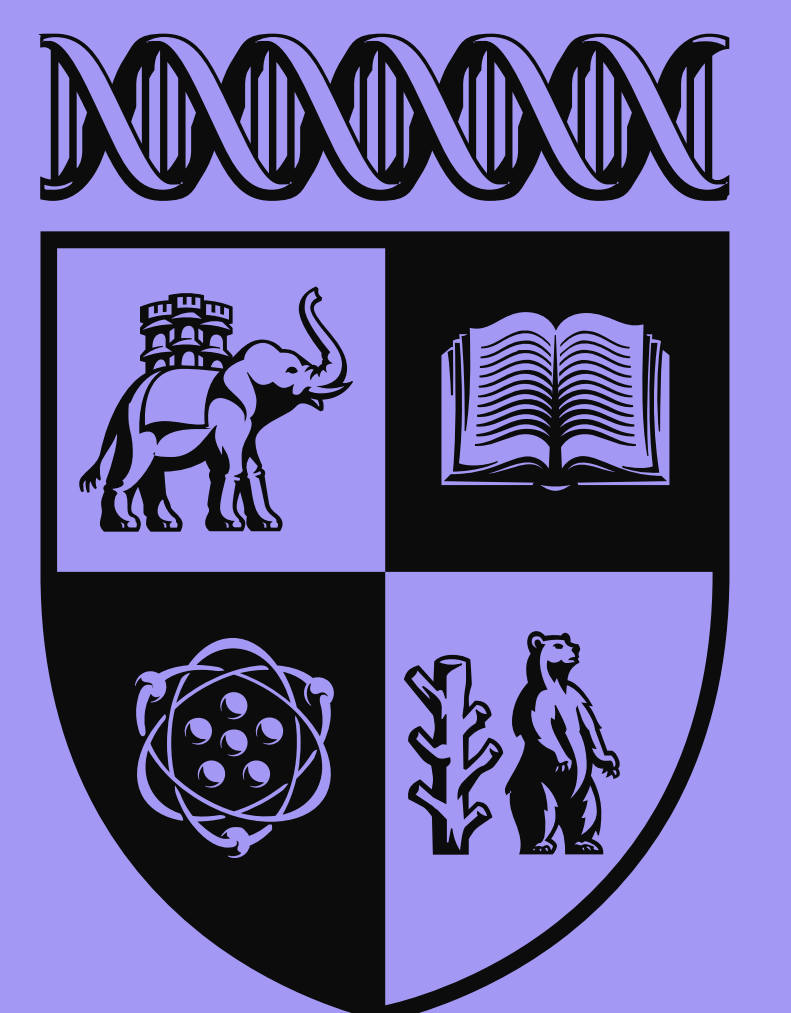
Warwick and Student Research

- Research is not just for postgraduates and academics – all undergraduates and PGTs should have opportunities.
- Flagship programmes support student researchers from idea to dissemination (over 20 years).
- Students share research nationally and internationally (conferences, journals).
- Builds academic skills, confidence, project management, and pathways to postgraduate study.



Why Student Research?

- Develops future researchers while preparing graduates to bring research skills into wider careers and society.
- Fosters an inclusive, collaborative research culture that values diversity and accessibility.
- Encourages lifelong learning, interdisciplinary approaches, and new ways of thinking for all researchers at all levels.
- Builds critical thinking, problem-solving, and transferable skills that enhance employability.



Programmes/Outputs/Networks

- Hundreds of students funded each year (URSS, PATHWAYS, Social Mobility Hub, IATL) to pursue independent, meaningful research.
- Students share outcomes national and globally through *Reinvention* journal, ICUR, and *Posters in Parliament*.
- Recognition of Warwick's leadership: hosted World Congress on UG Research/British Conference of UG Research 2023 (650+ students), international collaborations, awards.
- Embedding a sustainable, inclusive culture where undergraduate research shapes tomorrow's researchers, professionals, and engaged citizens.

