

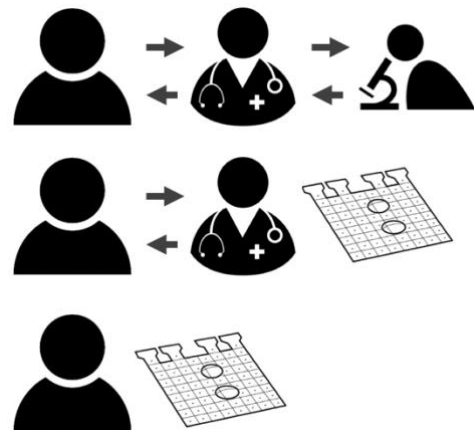
Mirela Alistar, Assistant Professor
Director of “Living Matter” Lab
University of Colorado, Boulder
mirela.alistar@colorado.edu
<http://www.personallab.org>

Curriculum Vitae

Research: personal use of biochips

In my work, I investigate how to ubiquitize healthcare by moving the process of diagnosis closer to the patient.

In order to enable the transition towards doctors and ultimately patients, I am working on ways to design biochips that can be operated at the level of expertise of doctors and patients. I design and fabricate novel biochip hardware (recently adopted by researchers at universities like MIT and the University of Washington), write system-level software (real-time compilation and fault-tolerant synthesis), and am currently developing a user-facing system that allows users to edit bio-protocol interactively.



Professional appointments

Assistant Professor in Soft Materials at University of Colorado, Boulder 2019 – now
Leading “Living Matter” lab
Atlas Institute | Department of Computer Science | Biomedical Engineering

Postdoctoral fellow at Hasso Plattner Institute, Germany 2015 - 2018
Topic: “Digital microfluidic biochips for personal use”
Advisor: Patrick Baudisch, **Human Computer Interaction Lab**

Research internships

Advanced Liquid Logics, France 2012
External research stay, advisors: Cyril Delattre, Arnaud Rival

Education

PhD in **Computer Engineering** at Technical University of Denmark 2010 - 2014
Thesis: “Compilation and synthesis for fault-tolerant digital microfluidic biochips”
Advisor: Paul Pop, Jan Madsen, **Embedded Systems Engineering Lab**

BSc in **Computer Automation and Control** at Politehnica Bucuresti, Romania 2004 - 2009
Thesis: “Functional verification of integrated circuits”

Advisor: Ion Bucur, **Logic Design** Lab

Books authored

- [1] Paul Pop, **Mirela Alistar**, Elena Stuart, Jan Madsen. Fault-tolerant digital microfluidic biochips. Springer 2016. [[10.1007/978-3-319-23072-6](https://doi.org/10.1007/978-3-319-23072-6)]

Journal papers

- [7] Fiona Bell, Ella McQuaid, and **Mirela Alistar**. 2022. Alganyl: Cooking Sustainable Clothing. *Diseña (20)*, Article 4. Retrieved from: <http://revistadelaconstruccion.uc.cl/index.php/Disena/article/view/33285>
- [6] Timothy Merritt, Foad Hamid, **Mirela Alistar**, Marta DeMenezes. 2020. Living media interfaces: a multi-perspective analysis of biological materials for interaction. *Digital Creativity Journal*. [[10.1080/14626268.2019.1707231](https://doi.org/10.1080/14626268.2019.1707231)]
- [5] **Mirela Alistar**. 2019. Mobile Microfluidics. *Bioengineering Journal*. [[10.3390/bioengineering6010005](https://doi.org/10.3390/bioengineering6010005)]
- [4] **Mirela Alistar**, Urs Gaudenz. 2017. OpenDrop: An Integrated Do-It-Yourself Platform for Personal Use of Biochips. *Bioengineering Journal*. [[10.3390/bioengineering4020045](https://doi.org/10.3390/bioengineering4020045)]
- [3] **Mirela Alistar**, Paul Pop, Jan Madsen. 2016. Synthesis of application-specific fault-tolerant digital microfluidic biochip architectures. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*, 764-777. [[10.1109/TCAD.2016.2528498](https://doi.org/10.1109/TCAD.2016.2528498)]
- [2] **Mirela Alistar**, Paul Pop. 2015. Synthesis of biochemical applications on digital microfluidic biochips with operation execution time variability. *Elsevier Integration VLSI*, 158-168. [[10.1016/j.vlsi.2015.02.004](https://doi.org/10.1016/j.vlsi.2015.02.004)]
- [1] **Mirela Alistar**, Paul Pop, Jan Madsen. 2015. Redundancy optimization for error recovery in digital microfluidic biochips. *Springer Design Automation for Embedded Systems (DAEM)*, 129-159. [[10.1007/s10617-014-9157-2](https://doi.org/10.1007/s10617-014-9157-2)]

Collaborations

Breck Duerkop (CU Anschutz) – on-going project
Laura Devendorf – submitted paper (DIS'22), published paper (CHI'21), on-going project
Accenture Labs – published paper (CHI'21), on-going project
AFOAA – on-going project
Aaron Clauset – on-going project
MIT - published paper (CHI'21)
Daniel Leithinger, Carson Bruns, Cristoph Kepplinger – published paper (DIS'21)

Conference papers

- [17] Fiona Bell, Netta Ofer, Hyelin Choi, and Mirela Alistar. 2022. Biomaterial Playground: Engaging with Bio-based Materiality. *Submitted to CHI'22. (Under Review)*.
- [16] Dreycey Albin, Angela Folz, Mirela Alistar. DebruijnExtend: Probabilistic Protein Secondary Structure Prediction using a de Bruijn Graph. *Submitted to ISBM'22 (Under review)*
- [15] Fiona Bell, Netta Ofer, and Mirela Alistar. 2022. ReClaym our Compost: Biodegradable Clay for Intimate Making. (*Submitted to CHI'2022, Major revision*)
- [14] Fiona Bell and Mirela Alistar. 2022. Designing with Alganyl: A Hands-on Exploration of Biodegradable Plastics. In *Proceedings of the Sixteenth International Conference on Tangible, Embedded, and Embodied Interaction (TEI '22)*. doi:10.1145/3490149.3503669
- [13] Fiona Bell, Latifa Al Naimi, Ella McQuaid, and **Mirela Alistar**. 2022. Designing with Alganyl. *Conference on Tangible, Embedded, and Embodied Interaction (TEI '22)*. DOI: <https://doi.org/10.1145/3490149.3501308>
- [12] Fiona Bell, Alice Hong, Andreea Danielescu, Aditi Maheshwari, Ben Greenspan, Hiroshii Ishii, Laura Devendorf, **Mirela Alistar**. 2021. Self-deStaining Textiles: Designing Interactive Systems with Fabric, Stains and Light. *Conference on Human Factors in Computing Systems (CHI'21, 25% acceptance rate)*.
- [11] Netta Ofer, Fiona Bell, **Mirela Alistar**. 2021. Designing Direct Interactions with Bioluminescent Algae. *Conference on Designing Interactive Systems (DIS'21, 30% acceptance rate)*.
- [10] Purnendu ., Eric Acome, Sasha Novack, Daniel Leithinger, Carson Bruns, Cristoph Keplinger, **Mirela Alistar**, Mark Gross. 2021. Electriflow: Soft Electrohydraulic Building Blocks for Prototyping Shape-changing Interfaces. *Conference on Designing Interactive Systems (DIS'21, 30% acceptance rate)*.
- [9] Raphael Kim, Pat Pataranutaporn, Jack Forman, Seung Ah Lee, Ingmar H Riedel-Kruse, **Mirela Alistar**, Eldy S Lazaro Vasquez, Katia Vega, Roland van Dierendonck, Gilad Gome, Oren Zuckerman, Angela Vujic, David S Kong, Pattie Maes, Hiroshi Ishii, Misha Sra, Stefan Poslad. 2021. Microbe-HCI: Introduction and Directions for Growth. *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems*.
- [8] **Mirela Alistar**, Margherita Pevere, 2020. Semina Aeternitatis: Semina Aeternitatis: Using Bacteria for Tangible Interaction with Data. *Conference on Human Factors in Computing Systems (alt-CHI'20)*.
- [7] Alexandra Ion, Johannes Frohnhofen, **Mirela Alistar**, Ludwig Wall, Jack Lindsay, Pedro Lopes, Hsiang-Ting Chen, Patrick Baudisch. 2016. Metamaterial Mechanisms. *Proc. ACM Symposium on User Interface Software and Technology (UIST)*, 529-539. **Honorable Mention Award**. [10.1145/2984511.2984540]
- [6] **Mirela Alistar**, Paul Pop. 2015. Towards droplet size-aware biochemical application compilation for AM-EWOD biochips. *Proc. IEEE Symposium on Design, Test, Integration & Packaging of MEMS and MOEMS (DTIP)*, 1-6. [pdf]

- [5] **Mirela Alistar**, Paul Pop. 2014. Online synthesis for operation execution time variability on digital microfluidic biochips. *Proc. IEEE International Symposium on Integrated Circuits (ISIC)*, 356-359. [[10.1109/ISICIR.2014.7029557](https://doi.org/10.1109/ISICIR.2014.7029557)]
- [4] **Mirela Alistar**, Paul Pop, Jan Madsen. 2013. Operation placement for application-specific digital microfluidic biochips. *Proc. IEEE Symposium on Design, Test, Integration & Packaging of MEMS and MOEMS (DTIP)*, 1-6. [[pdf](#)]
- [3] **Mirela Alistar**, Paul Pop, Jan Madsen. 2013. Application-specific fault-tolerant architecture synthesis for digital microfluidic biochips. *Proc. IEEE Asia and South Pacific Design Automation Conference (ASPDAC)*, 794-800. [[10.1109/ISICIR.2014.7029557](https://doi.org/10.1109/ISICIR.2014.7029557)]
- [2] **Mirela Alistar**, Paul Pop. 2012. Online synthesis for error recovery in digital microfluidic biochips with operation variability. *Proc. IEEE Symposium on Design, Test, Integration & Packaging of MEMS and MOEMS (DTIP)*, 53-58. [[pdf](#)]
- [1] **Mirela Alistar**, Elena Maftai, Paul Pop, Jan Madsen. 2010. Synthesis of biochemical applications on digital microfluidic biochips with operation variability. *Proc. IEEE Symposium on Design, Test, Integration & Packaging of MEMS and MOEMS (DTIP)*, 1-6. [[pdf](#)]

Patents

- [1] **Mirela Alistar**, Fiona Bell. Alganyl. Provisional Patent Application No 63/184,992.

Awards and Honors

- 2016 Honorable Mention Award receive at ACM User Interface Software and Technology Symposium (UIST)
- 2014 Best Poster Award received for outstanding doctoral research, at the PhD Forum organized by the Design, Automation and Test in Europe Conference (DATE)

Service for the Department

spring 2022	Member of ATLAS Curriculum Committee
fall 2021	Member of ATLAS Curriculum Committee
	Member of the CEAS search Committee
spring 2021	Member of CS Graduate Committee
fall 2020	Member of CS Graduate Committee
summer 2020	Member of ATLAS Graduate Committee
spring 2020	Member of the CS Executive Committee
	Member of ATLAS Graduate Committee
fall 2019	Member of ATLAS Graduate Committee

Service for journals and conferences

2022	Editor for Belstein Journal of Nanotechnology, special issue Fabrication and application of nano- and microfluidic devices https://www.beilstein-journals.org/bjnano/series/95
2021	Publicity Chair for UbiComp and ISWC
2021	Associated Editor for Frontiers in Computer Science, special issue: Microbes in HCI
2021	Technical Program Committee member for ISWC, DATE
2021	Program committee member for DIS (Associated Chair)
2021	Reviewer for TCAD, JETC, CHI, DIS, ISWC
2020	Reviewer for TCAD
2019	Program committee member for ICCD
2019	Reviewer for DATE, ICCD, CHI, VLSI, TBioCAS
2018	Program committee member for DSD
2018	Reviewer for Microelectronics, Molecular Communications, TCAD
2017	Guest editor for NanoCom and Current Biotechnology Journal
2017	Reviewer for TCAD, TBIOCAS, TODAES, Journal of Applied Materials and Interfaces
2017	Reviewer for UIST, CHI conferences
2016	Program committee member for GLSVLSI, Track for Biochips and Biological Systems
2015	Reviewer for JETC

Organizations

[7]	Board Member for Open Source Hardware Association	2021 - now
[6]	Member of the Vision team for Nature, Environment, Science & Technology (NEST) Studio for the Arts – CU Boulder	2020 - now
[5]	Organizer of BEAT – Art & Tech community in Boulder	2019 - now
[4]	Founder of TopLab – community wetlab in Berlin	2017
[3]	Board member of Biotinkering – community wetlab in Berlin	2016 - 2017
[2]	Chairwoman of Biologigaragen – community wetlab in Copenhagen	2015 - 2016
[1]	Board member of PhD Association,DTU	2010 - 2014

Workshops and tutorials (organizer)

[10]	Fiona Bell and Mirela Alistar. Designing with Alganyl, TEI'22	2022
[9]	Raphael Kim [...], Mirela Alistar, [...]. Microbes in HCI, CHI'21	2021
[8]	Mirela Alistar . Berlin Soil. <i>Art college Berlin - Weissensee</i> , Germany	2019
[7]	Mirela Alistar . Personal Biochips. <i>Universitatea Politehnica Bucuresti</i> , Romania	2019
[6]	Mirela Alistar . Hands-on microfluidics. <i>Molecular Communications</i> , Ireland	2017
[5]	Mirela Alistar , Krishnendu Chakrabarty, Jan Madsen, Tsung-Yi Ho, Robert Wille. Usability of system-level biochips. <i>Shonan Seminar</i> , Japan	2017

- [4] **Mirela Alistar**, Krishnendu Chakrabarty, Jan Madsen, Tsung-Yi Ho, Robert Wille. When Embedded Systems meet Life Sciences: Microfluidic biochips for real-time healthcare. *Embedded Systems Week, USA* 2016
- [3] **Mirela Alistar**. Hands-on experiences on actual biochips. *Dagstuhl Seminar* 2015
- [2] Paul Pop, Jan Madsen, **Mirela Alistar**. Biochips information meeting, Denmark 2015
- [1] Ruediger Trojok, **Mirela Alistar**. Synthetic biology week course, Finland 2015

Invited talks and panels

Keynotes and Panels

- [6] Mirela Alistar. Data Reproducibility in biology. *Berlin Science Week, Germany* 2018
- [5] Mirela Alistar [panel]. Industry Engagement in Molecular Communications, Ireland 2017
- [4] Mirela Alistar. Printing your medicine. *Singularity Salon, Denmark* 2016
- [3] Mirela Alistar, Ruediger Trojok, Urs Gaudenz. Digital Biology in every home, *SiLA* 2016
- [2] Mirela Alistar. DIYBio movement in Europe. *INASCON, Switzerland* 2016
- [1] Mirela Alistar. Synthetic Biology for Future II 2015

Talks

- 2021
- [19] UMBC, Interactive Systems Research Center, hosted by Foad Hamidi
- [18] Colorado State University, Chemical and Biological Engineering, hosted by Joshua Chan
- [17] University of Chicago, HCI lab, hosted by Pedro Lopes
- [16] UC Santa Barbara, MAT Seminar, hosted by Marko Peljhan 2020
- [15] Accenture Lab, hosted by Alex Kass, San Francisco
- 2019
- [14] Rotary Club, Boulder
- [13] AWG ATLAS, hosted by Jill Drupe, Boulder
- [12] FairView Highschool, Boulder
- [11] BioCHIP conference, invited speaker, Berlin
- [10] Rostock University, hosted by Brigitte Puetzer, Rostock
- [9] Inst. of Biochemistry Romania, hosted by Robert Tacutu, Bucharest
- 2018
- [8] sRNA Bio & Organoids conference, invited speaker, Kiev
- [7] Johannes Kepler University, hosted by Robert Wille
- [6] Microfluidics Meeting, hosted by Peter Hewkin
- [5] UC Santa Barbara, hosted by Ambuj Singh
- [4] University of Colorado, hosted by Nikolaus Correll
- [3] University of Utah, hosted by Chris Myers
- [2] Northeastern University, hosted by David Kaeli
- [1] Aalto University, hosted by Jyri Hämäläinen
- before 2018 (selection)
- 2017
- [16] University of Washington, hosted by Luis Ceze
- [15] UC San Diego, hosted by Ryan Kastner
- [14] University of South California, hosted by Paul Bogdan

[13]	University of Chicago, hosted by Fred Chong	
[12]	University of Colorado Boulder, hosted by Mark Gross	
[11]	Simon Fraser University, hosted by Ash Parameswaran	
[10]	University of British Columbia, hosted by Karon MacLean	
[9]	École Polytechnique de Lausanne, hosted by Philippe Renaud	
[8]	University of Twente, hosted by Alvaro Marin	
[7]	University of Twente, hosted by Frieder Mugele	
[6]	Bristol University, hosted by Anne Roudaut and Adam Perriman	2016
[5]	Tokyo University, hosted by Masahiko Inami	
[4]	University of Sussex, hosted by Sri Subramanian	
[3]	IWF Leibniz Institute, hosted by Andreas Winkler	2015
[2]	University of Bremen, hosted by Robert Wille	2012
[1]	Advanced Liquid Logics, hosted by Cyril Delattre	

Grants

Awarded

[2]	44,761 USD, RIO seed grant, CU Boulder	2020
[1]	146,837 EUR, PhD fellowship offered by DTU	2010
Small grants		
[15]	2,883 USD, CFVP program at CU Boulder	2021
[14]	15,000 USD, Google CSR for outreach	2021
[13]	6,000 USD, EEF program at CU Boulder	2020
[12]	5,400 USD, DLA program at CU Boulder	2020
[11]	2,500 USD, UROP program at CU Boulder	2020
[10]	2,500 USD, BSI program at CU Boulder	2020
[9]	2,000 USD, CHA program at CU Boulder	2020
[8]	5,000 EUR, Click Festival	2016
[7]	4,000 USD, NAPP	2019
[6]	2,800 USD, RIO for conference	2019
[5]	1,000 EUR, (Synenergene, INASCON)	2015
[4]	800 EUR, Otto Mønsted	2013
[3]	450 EUR, Cost EU	2016
[2]	450 EUR, Orange Innovation	2015
[1]	300 EUR, Biofaction	2014

Teaching

Professional development (courses I took to develop as a teacher)

[2]	Teaching and Learning, Technical University of Denmark	2010
[1]	Pedagogical module, University Politehnica Bucuresti	2008 – 2009

Full courses I have been teaching

[7] **Fundamentals of HCI (#CSCI 3002)**, CU Boulder, summer & fall 2021 (210 students)

This class introduces the practice and research of human-computer interaction, including its history, theories, the techniques of user-centered design, and the development of interactive technologies. Covers computing in society at large with respect to domains such as health, education, assistive technology, ethics, environment, and more.

[6] **Biodesign (#ATLS 4519/5519)**, CU Boulder, spring 2021 (20 students)

This class covers basic design techniques, together with essential wetlab skills. Students will learn how to culture and grow various types of organisms, such as algae (dynoflagellates, cyanobacteria) and mycellium. Some of the class projects may be selected to participate in the Biodesign Challenge competition.

[5] **User-Centered Design and Development (#CSCI 5839/ATLS 5519)**, CU Boulder, fall 2020 (10 students)

This class helps students develop the skills and practices necessary to apply user-centred approaches to software requirements analysis, and the design and evaluation of computer applications.

[4] **Hybrid Computer-Bio Interfaces (#CSCI 7000-802)**, CU Boulder, spring 2020 (15 students)

The topics class (graduate level) exposed students to interdisciplinary topics at the intersection of computing and biology. The lectures will cover biomedical microelectronics systems, artificial life, lab-on-chips, designing with living matter, and tangible interfaces. The course includes hands-on sessions of bio & microelectronics experiments in specialized labs.

[3] **Computational Foundations II (#ATLS 2519)**, CU Boulder, fall 2019 (30 students)

The undergraduate course taught advanced concepts in Computer Science. To engage the students in interdisciplinary thinking, I introduced throughout the course advanced aspects of Biotechnology, together with concepts in Computer Science. By teaching the students aspects of a completely different discipline (e.g., the pathways in a biological cell), they learnt as a side-effect, the Computer Science concepts (e.g., the finite state machine). Biotechnology is relatable and will shape directly our lives and our near future, e.g., our identity through genetic sequencing. Since there is nothing more impactful for the students than when they can relate the concepts to their own existence, "Code 2" helped students internalize the abstract programming concepts. In the long term, I want to inspire the students to bravely dive into new domains, as well as realise the power of interdisciplinary thinking.

[2] **Personal Biochips**, grad-level course, CU Boulder, summer 2019 (20 students)

Personal Biochips engaged 20 PhD students in digital microfluidic research, with the aim of bridging the gap between computer science and microbiology. We invited PhD students with diverse backgrounds (e.g., computer engineering, biology, microfluidics). During the hands-on sessions, each student built their own biochip, learn how to program it, and developed a bio-protocol for it. The students worked in groups and learnt from each other how to collaborate and develop new ideas. Apart from the theoretical and hands-on sessions, the students were involved

in a “where would it lead” open discussion with the senior researchers; discussion meant to identify the current research challenges and the future directions of the field.

[1] **Introduction to Biodesign**, undergrad course, TU Berlin, summer 2019 (20 students)

Introduction to BioDesign offered students the opportunity to envision future applications of biotechnology. The course covered various interaction and design techniques for working with living media. Five most used design techniques were explored in the context of bioluminescent bacteria and algae. Moreover, students learnt, in a practical manner, how to culture these micro-organisms, and how to build tools that allow them to engage with the living organisms. The course was mostly hands-on, i.e., it involves two practical sessions per week.

Lectures

[4] **Biodesign and Physical Interaction with Living Matter** (2019)

1 hour lecture as part of “Green Lab”, BSc level course at the Art College Berlin – Weissensee.

[3] **Experimental microalgae** (2017)

8 hours lecture as part of “Microbes” course for Industrial Design study line at University of Art and Design Halle.

[2] **Fault-tolerant digital microfluidic biochips** (2015 – 2017)

90 minute lecture as part of “Future interactive technologies”, MSc level course at Hasso Plattner Institute.

[1] **Software reliability** (2012 – 2014)

4 hours lecture as part of “Safety-critical embedded systems”, MSc level course at Technical University of Denmark.

Teaching assistant

[3] Fundamentals of embedded systems, MSc level course at DTU 2014

[2] Safety-critical embedded systems, MSc level course at DTU 2012

[1] Distributed systems, MSc level course at DTU 2010

Mentoring

PhD students (on-going)

[1-4] Eldy Lazaro, Fiona Bell (PhD Candidate), Latifa Al-Naimi, Dreycey Albin

Research Master Students (on-going)

[1] Netta Ofer

Master thesis (5 months full-time)

[4] Ethan Frier 2021
DYI Bioreactor for Spirulina Microalgae

[3] Silvia Copil-Crisan 2014
Droplet size-aware synthesis of digital microfluidic biochips. DTU

[2] Maciej Piotr Lukas 2010

Mirela Alistar – Curriculum Vitae

9/12

	A simulator for digital microfluidic biochips. DTU	
[1]	Adam Kordianowski Design and implementation of analysis and optimization tool for embedded systems aiming at increased interoperability. DTU	2010
	Bachelor thesis (9 months part time)	
[2]	Skylar Martin PhageOne: Inferring the Grammar of Bacteriophage Genomes	2021
[1]	Christian Ejdal Sjøgreen Synthesis of biochemical applications with operation variability on biochips. DTU	2010
	Independent studies (semester research projects, approximately 2 days per week)	
[24]	Hyelin Choi, Megan Hupka	2022
[23]	Eldy Lazaro	2021
[19-22]	Elise Niehaus, Ella McQuaid, Allison Heckman, Skylar Martin	2020
[17-18]	Shenali Uragoda, Malika Rakhmanova	2020
[12-16]	Ria Khan, Ethan Frier, Fiona Bell, Sergio Rivera, Arva Syed	2020
[11]	Lennart Lehmann	2018
[9-10]	Deus Gloeckner, Simon Dietz	2017
[8]	Simon Dietz	2017
[4-7]	Andreas Burmeister, Tobias Wollowski, Felix Musmann, Noel Danz	2016
[3]	Catalin Carmaciu	2014
[2]	Silvia Copil-Crisan, Florin Maticu	2013, 2014
	Cross-disciplinary hackathons with students of engineering, biology and art	
[4]	HackCU Health, CU Boulder	2020
[3]	Hacking Health, Berlin Institute of Health, Germany	2017
[2]	Hack HPI, Hasso Plattner Institute, Germany	2017
[1]	Biocommons hackathon, Italy	2015

Outreach

In my role as founder or chairwoman of community wetlabs, I organized the following workshops to inspire enthusiasts of diverse backgrounds (e.g., engineering, art, design):

- [9] "Culture and Colonies" (with M. Gapševičius), Ruine hq, 2019
- [8] "Let it glow", Maker faire, Germany, 2017
- [7] "Trapped in transition", ACUD gallery, Germany, 2017
- [6] "Bioluminescence under water", Re:publica festival, Germany, 2017
- [5] "Digital microfluidics", Maker faire, Denmark, 2016
- [4] "Hands-on bioluminescence", workshop, Art Laboratory Berlin, Germany, 2016
- [3] "The life of single organisms", workshop, Art Laboratory Berlin, Germany, 2016
- [1] "Pee-power", workshop, P1LiveX festival, Denmark, 2014



From left to right: performing at Re:publica festival, giving a DIY workshop at Art Laboratory Berlin and mentoring a hackathon in Italy.

I give talks about my research in spaces such as museums and art galleries:

- [4] "CS for contributory biodiversity", Wikimedia Germany 2017
- [3] "Synthetic biology in home labs", Naturkundemuseum, Germany 2017
- [2] "Digital biology", Freies Museum, Germany 2016
- [1] "Intro to digital biology", Art Laboratory Berlin, Germany 2015

I perform and exhibit art installations in various galleries/museums:

- [13] "Under the microscope", performance, Museum of Boulder 2022
- [12] "Bioluminescent Touch" (with Netta Ofer), installation, Museum of Boulder 2021
- [11] "Semina Aeternitatis" (with M. Pevere), installation, Kunsthalle Rostock gallery 2019
- [10] "Secreted functions" (with AslieMK), performance, Berlin, ([press](#)) 2019
- [9] "The microbiome of Grabowsee", installation, Grabowsee gallery 2018
- [8] "Perfume distillation machine" (with R. Blake), installation, Grabowsee gallery 2018
- [7] „bio-dream“, installation, <top, Germany 2018
- [6] "Algae bar", installation, Transmediale Vorspiel, Germany 2018
- [5] "Sustainable cannibalism", installation, SchillerPalais gallery, Germany 2018
- [4] "Eating me out", interactive installation, >top, Germany 2017
- [3] "Vital invasion", performance, Transmediale, Germany 2017
- [2] "Microfluidic art", installation, Click festival, Denmark 2016
- [1] "Algae bar", installation, Transart, Denmark 2015

Below a selection of my most relevant outreach activities:

- [6] Summer Workshop at CU Boulder, Colorado, US ([video](#)) 2019
- [5] Semina Aeternitatis exhibition, Rostock Kunsthalle, Germany ([video](#)) 2019
- [4] Tutorial at sRNA Bio Conference, Kiev, Ukraine ([video](#)) 2018
- [3] Workshops at Re:publica festiva, Berlin, Germany I ([video](#)) 2017
- [2] Hackthon at Hasso Plattner Institute, Potsdam, Germany ([video](#)) 2017
- [1] Tutorial at Molecular communications, Cork, Ireland ([video](#)) 2017

References

Philip Brisk, Professor at the Department of Computer Science and Engineering, University of California Riverside, philip@cs.ucr.edu, phone: +1 (951) 827-2030

Krishnendu Chakrabarty, John Cocke Distinguished Professor and Chair of the Department of Electrical and Computer Engineering, Duke University, krish@duke.edu, phone: +1 (919) 660-5270

Mark Gross, Professor, Director of ATLAS Institute, University of Colorado at Boulder, mdgross@colorado.edu. Phone: +1 (303) 736-9991

Chris Myers, Professor, Chair of Electrical, Computer and Energy Engineering Department. Chris.Myers@colorado.edu Phone: +1 (303) 735-0316

Andreea Danielescu, R&D Lead for Future Technologies, Accenture labs. andreea.danielescu@accenture.com

In the news

[6] [Origami comes to life with new shape-changing materials](#)

[5] [ATLAS @ CHI 2021](#)

[4] [Engaging Underrepresented Students \(funded through Google exploreCSR\)](#)

[3] [Healthcare at Home](#)

[2] Semina Aeternitatis: *can you inscribe human nostalgia onto foreign DNA?* <https://we-make-money-not-art.com/semina-aeternitatis-can-you-inscribe-human-nostalgia-onto-foreign-dna/>

[1] Mirela Alistar about growing glowing bacteria at home
<https://www.youtube.com/watch?v=OO5mJTnRV-Q>