

## Curriculum Vitae

### Personal Data

Title	Jun.-Prof. Dr. Ing.
First name	Priscilla S.
Name	Briquez
Current position	Junior Professor with Tenure Track (W1)
Current institution(s)/site(s), country	Department of General and Visceral Surgery, Medical Faculty, Medical Center University of Freiburg, Freiburg, DE
Identifiers/ORCID	ORCID-ID: 0000-0002-4680-9636

### Qualifications and Career

Stages	Periods and Details
Degree programme	2006-2009, BSc in Life Sciences and Technology, EPFL 2009-2011, MSc in Bioengineering, EPFL <i>EPFL: Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland (CH)</i>
Doctorate	2016, PhD in Protein Engineering and Biomaterials, Prof. Dr. Jeffrey A. Hubbell, EPFL, Lausanne, Switzerland
Stages of academic/professional career	2021: Junior Professor with Tenure-Track in Oncolmmunology, Department of General and Visceral Surgery, Medical Center University of Freiburg, Freiburg, Germany 2017: Co-founder and consultant of the start-up company MorphoGene SA, Morges, Switzerland 2016-2021: Postdoctorate in Molecular ImmunoEngineering, Pritzker School of Molecular Engineering, The University of Chicago, Chicago, Illinois (IL), United States of America (USA) 2017-2021: Co-lecturer in Biology and Engineering of Tissue Repair, University of Chicago, IL USA 2017-2019: Staff member for the French-American Science Festival for Kids, Chicago, IL USA. 2011-2016: PhD in Protein Engineering and Biomaterials, EPFL, Switzerland.

### Activities in the Research System

#### **Scientific activities:**

- Since 2025 PI, TRR417 Cellular communication in the stroma of colorectal cancer  
Since 2024 Associated member, Center for Integrative Biological Signalling Studies (CIBSS1)

#### **Committees and faculty responsibilities:**

- Since 2024 Executive committee member, Spemann Graduate School of Biology and Medicine (SGBM), University of Freiburg, Freiburg, Germany  
Since 2021 Member of the Faculty Council, Faculty of Medicine, University of Freiburg, Freiburg, Germany

#### **Scientific meeting organisation:**

- 2025 Organizing committee member, Annual Conference of Matrix Biology, German-Nordic Joint Extracellular Matrix (ECM) meeting.  
2025 Chair session, Regenerative Immunoengineering, Tissue Engineering Regenerative Medicine International Society (TERMIS-EU)

2024	Organizing committee member, Upper Rhine Immunology (URI) Meeting, Basel, Switzerland
2024	Chair session, Regenerative Immunoengineering, Gordon Research Conference ImmunoEngineering, Ciocco, Italy
2022	Co-chair, TERMIS-EU

#### **Editorial Boards:**

Since 2022	Editorial board member, Frontiers in Immunology (IF = 7.3)
Since 2016	Editorial board member, Advances in Wound Care (IF = 4.9)
2018	Guest editors in Materials, MDPI

#### **Reviewer activities:**

Advances in Wound Care, ACS journal, Frontiers in Immunology, Advanced Materials, Cell and Tissue Research, Nature Communication, Journal of Clinical Investigation, Journal of Controlled Release, Nature Aging.

#### **Teaching:**

Since 2023	Lecturer in Cancer Biology, University of Freiburg, Germany
Since 2022	Lecturer in Basic Immunology, University of Freiburg, Germany
2018-2020	Co-Lecturer, Biology and Engineering of Tissue Repair, University of Chicago
2015-2016	Invited lecturer, 2 courses: Biomaterials and Pharmacology, Ecole Polytechnique Federale Lausanne, Switzerland

#### **Mentoring:**

Since 2022	Participation in the Kite Mentoring Program, University of Freiburg
2015-2016	Co-founder & president, Life Science PhD Student association, Ecole Polytechnique Federal of Lausanne (EPFL), Switzerland
Since 2012	Supervision of 17 students from all levels (2 PhDs, 2 Master, 2 Minor, 7 Bachelor and 2 summer students)

#### **Supervision of Researchers in Early Career Phases**

- Supervision of a post-doctoral researcher: Dr. Huda Jumaa (from March 2024)
- 2 PhD students: Justas Sidiskis and Aishwarya Saxena (from March/April 2024), University of Freiburg, Germany
- Dr. Fuxin Zhou, I am the primary PI of his MD thesis at the University of Freiburg, Germany
- Kevin Chang (2021-ongoing), I am a co-PI on his PhD thesis at the University of Chicago, Illinois, USA
- Dr. Jialu Liu (2016-2020), I have supervised her PhD thesis in the laboratory as a post-doctoral researcher.

#### **Scientific Results**

##### **Category A**

1. Z. Goldberger\*, S. Hauert\*, K. Chang, T. Kurtanich, A.T. Alpar, G. Repond, Y. Wang, S. Gomes, R. Krishnakumar, P. Siddarth, M.A. Swartz, J.A. Hubbell, **P.S. Briquez**. Membrane-localised neoantigens predict the efficacy of cancer immunotherapy. *Cell Rep Med*. 2023. doi: 10.1016/j.xcrm.2023.101145.
2. **Briquez, P. S.**, Rouhani, S. J., Yu, J., Pyzer, A. R., Trujillo, J., Dugan, H. L., Stamper, C. T., Changrob, S., Sperling, A. I., Wilson, P. C., Gajewski, T. F., Hubbell, J. A. & Swartz, M. A. Severe COVID-19 induces autoantibodies against angiotensin II that correlate with blood pressure dysregulation and disease severity. *Sci Adv*. 2022. doi: 10.1126/sciadv.abn3777.

3. 3. Liu, J., Solanki, A., White, M. J. V., Hubbell, J. A. & **Briquez, P. S.** Therapeutic use of  $\alpha 2$ -antiplasmin as an antifibrinolytic and hemostatic agent in surgery and regenerative medicine. *Npj Regen Med.* 2022. doi: 10.1038/s41536-022-00230-x.
4. 4. Gray, L. T.\*, Racz, M. M.\*, **Briquez, P. S.\***, Marchell, T. M.\*, Alpar, A. T., Wallace, R. P., Volpatti, L. R., Sasso, M. S., Cao, S., Nguyen, M., Mansurov, A., Budina, E., Watkins, E. A., Solanki, A., Mitrousis, N., Reda, J. W., Yu, S. S., Tremain, A. C., Wang, R., Nicolaescu, V., Furlong, K., Dvorkin, S., Manicassamy, B., Randall, G., Wilson, D. S., Kwissa, M., Swartz, M. A. & Hubbell, J. A. Generation of potent cellular and humoral immunity against SARS-CoV-2 antigens via conjugation to a polymeric glyco-adjuvant. *Biomaterials* 2021. doi: 10.1016/j.biomaterials.2021.121159. \*co-first author
5. 5. **Briquez, P. S.#**, Tsai, H.-M., Watkins, E. A. & Hubbell, J. A. Engineered bridge protein with dual affinity for bone morphogenetic protein-2 and collagen enhances bone regeneration for spinal fusion. *Sci Adv.* 2021. doi: 10.1126/sciadv.abh4302. #co-corresponding author
6. 6. Sasso, M. S., Mitrousis, N., Wang, Y., **Briquez, P. S.**, Hauert, S., Ishihara, J., Hubbell, J. A. & Swartz, M. A. Lymphangiogenesis-inducing vaccines elicit potent and long-lasting T cell immunity against melanomas. *Sci Adv.* 2021. doi: 10.1126/sciadv.abe4362.
7. 7. Ishihara, J., Ishihara, A., Fukunaga, K., Sasaki, K., White, M. J. V., **Briquez, P. S.** & Hubbell, J. A. Laminin heparin-binding peptides bind to several growth factors and enhance diabetic wound healing. *Nat Commun.* 2018. doi: 10.1038/s41467-018-04525-w.
8. 8. **Briquez, P. S.\***, Lorentz, K. M.\*, Larsson, H. M., Frey, P. & Hubbell, J. A. Human Kunitz-type protease inhibitor engineered for enhanced matrix retention extends longevity of fibrin biomaterials. *Biomaterials.* 2017. doi: 10.1016/j.biomaterials.2017.04.048. \*co-first author
9. 9. **Briquez, P. S.\***, Clegg, L. E.\*, Martino, M. M., Gabhann, F. M. & Hubbell, J. A. Design principles for therapeutic angiogenic materials. *Nat Rev Mater.* 2016. doi: 10.1038/natrevmats.2015.6 \*co-first author
10. 10. Martino, M. M.\*, **Briquez, P. S.\***, Güç, E., Tortelli, F., Kilarski, W. W., Metzger, S., Rice, J. J., Kuhn, G. A., Müller, R., Swartz, M. A. & Hubbell, J. A. Growth Factors Engineered for Super-Affinity to the Extracellular Matrix Enhance Tissue Healing. *Science.* 2014. doi: 10.1126/science.1247663 \*co-first author

Complete list of publications:

<https://pubmed.ncbi.nlm.nih.gov/?term=Briquez+PS>

## Category B

- Patent WO2014006082A; Hubbell, Martino, **Briquez** (2013) Issued “Protein-binding peptide isolated from placenta growth factor”.
- Patent WO2017190074A1; Swartz, Yu, Vokali, Fankhauser, Hirose, **Briquez**, Hubbell (2016) Pending “Lymphangiogenesis for therapeutic immunomodulation”.
- Patent WO2019094938A2; Hubbell, J. and A. Ishihara, **Briquez** (2017) Pending “Methods and compositions for the treatment of wounds”.
- Patent WO2022126119A2; Swartz, Hubbell, **Briquez** (2021) Pending “Methods and systems for detection and analysis of angiotensin-binding antibody”.
- Patent WO2023064883A1; Hubbell, **Briquez**, Goldberger, Hauert (2023) Pending “Immunotherapeutic methods for treating cancer”.

## Academic Distinctions

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| 2023 | ERC Starting Grant, European Research Council, DRESSCODE n°101116941   |
| 2019 | Award “Maria Lastra Postdoctoral Scholar Excellence in Mentoring”, Pritzker School of Molecular Engineering, University of Chicago |
| 2017 | Award “Best EPFL PhD thesis”, rewarding the 2 best PhD thesis of EPFL (all subjects)   |
| 2015 | Award “EPFL future leaders in Bioengineering”, Institute Award for PhD student   |
| 2011 | Prize “Chavannes-près-Renens” for marked favorable impression by actions and personality of a master student                       |
| 2006 | General baccalauréat in Science, Jury congratulations, average grade 19,07/20  |

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