

DR. HERWIG P. MOLL

Nationality: Austria
Medical University of Vienna
Center for Physiology and Pharmacology
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Web: [Inflame Lab](#)
[Publications Moll HP](#)

1. EDUCATION

09/2007 – 05/2010

PhD-student
Medical University of Vienna, Austria
Department of Surgery
PhD Thesis: *"Induction of Interferon Regulated Genes in Endothelial Cells: Differential Regulation by Interferon Subtypes and Pro-Inflammatory Cytokines"*, Principal Investigator: Christine Brostjan, PhD

01/2007 – 08/2007

PhD-student
Medical University of Vienna, Austria
Department of Vascular Biology and Thrombosis Research
"Identification and characterization of atheroprotective genes in porcine vasculature, potentially counteracting xenograft rejection", Principal Investigator: Rainer deMartin, PhD

06/2005 – 12/2006

Diploma student
Medical University of Vienna, Austria
Department of Surgery
Diploma Thesis: *"Induction of Interferon Regulated Genes in Endothelial Cells: Characterization of a Tumor Derived Stimulus and Endothelial Receptor Interactions"*, Principal Investigator: Christine Brostjan, PhD

2. POSTIONS

11/2014 – to date

University Assistant (since 2024 with an Internal Career Agreement)
Medical University of Vienna
Center for Physiology and Pharmacology

04/2011 – 09/2014

Postdoctoral Research Fellow
Beth Israel Deaconess Medical Center and Harvard Medical School
Department of Surgery,
Boston, Massachusetts, United States
Principal Investigator: Christiane Ferran, MD, PhD

10/2010 – 02/2011

Research Associate
Jungbunzlauer AG Austria,
Department of Product Development
Pernhofen, Austria

3. RESEARCH INTERESTS

Inflammation is a tightly controlled hemostatic process, and my research interest is based on understanding the different levels of control within this process. Particularly, I am interested how misbalance in inflammatory hemostasis contributes to disease, with a strong focus on lung cancer. We mainly use translational, preclinical models to address our research questions.

4. MENTORING AND SUPERVISION EXPERIENCE

Starting during my time at Harvard Medical School, I had the privilege of mentoring numerous Master and PhD students throughout my career, contributing to their academic and professional development. I have actively engaged with mentees to help them identifying and pursuing their professional goals. In alignment with my commitment to equal opportunities, I have strived to create an inclusive mentorship environment. Gender awareness is a key aspect of my mentorship philosophy, and I actively promote a culture that values diversity and inclusivity.

I encourage continuous learning and skill development, which involves not only technical and research-related skills but also the cultivation of essential soft skills such as effective communication, collaboration, and project management.

The Medical University of Vienna offers several courses for personal development, which I regularly attend to reflect and improve my skills as a mentor for younger colleagues.

4. ACADEMIC PUBLICATIONS

- Luca, A.C., Kurnaeva, M., John, D.K., Machtinger, M., Vollmer, N.H.J., Mödl, B., Hannich, J.T., Eckhard, M., Lam, H.S., Musiejovsky, L., Trenk, C., Homolya, M., Fürnsinn, C., Sombke, A., Schabbauer, G., Eferl, R., Sharif, O., Casanova, E., **Moll H.P.**[✉] Loss of SPHK1 fuels inflammation to drive KRAS-mutated lung adenocarcinoma. *Cancer Letters*, doi: 10.1016/j.canlet.2025.217733 (2025).
- Vranka, C., Homolya, M., Özer, Ö., Spittler, A., Machtinger, M., **Moll, H. P.**, Casanova, E., Kuntner, C., Grünert, S., Hacker, M. & Philippe, C. RadioFlow Cytometry Reveals That [(18)F]FDG Uptake in K-RAS Lung Cancer Is Driven by Immune Cells: An Analysis on a Single-Cell Level. *Journal of Nuclear Medicine* **66**, 215-222, doi:10.2967/jnumed.124.268799 (2025).
- Cirstea, I. C.^{*✉}, Moll, H. P.^{*✉}, Tuckermann J.^{*✉}. Glucocorticoid receptor and RAS: an unexpected couple in cancer. *Trends in Cell Biology*, doi:10.1016/j.tcb.2022.11.002 (2023).
- Caratti, B., Fidan, M., Caratti, G., Breiteneker, K., Engler, M., Kazemitash, N., Traut, R., Wittig, R., Casanova, E., Ahmadian, M. R., Tuckermann, J. P.^{*✉}, **Moll, H. P.**^{*✉} & Cirstea, I. C.^{*✉} The glucocorticoid receptor associates with RAS complexes to inhibit cell proliferation and tumor growth. *Science Signaling* **15**, eabm4452, doi:10.1126/scisignal.abm4452 (2022).
- Breiteneker, K., Homolya, M., Luca, A. C., Lang, V., Trenk, C., Petroczi, G., Mohrherr, J., Horvath, J., Moritsch, S., Haas, L., Kurnaeva, M., Eferl, R., Stoiber, D., Moriggl, R., Bilban, M., Obenaus, A. C., Ferran, C., Dome, B., Laszlo, V., Györfy, B., Dezso, K., Moldvay, J., Casanova, E. & **Moll, H. P.**[✉] Down-regulation of A20 promotes immune escape of lung adenocarcinomas. *Science translational medicine* **13**, doi:10.1126/scitranslmed.abc3911 (2021).
- Pflügler, S., Svinka, J., Scharf, I., Crncec, I., Filipits, M., Charoentong, P., Tschurtschenthaler, M., Kenner, L., Awad, M., Stift, J., Scherenthanner, M., Bischl, R., Herndler-Brandstetter, D., Glitzner, E., **Moll, H. P.**, Casanova, E., Timelthaler, G., Sibilia, M., Gnant, M., Lax, S., Thaler, J., Müller, M., Strobl, B., Mohr, T., Kaser, A., Trajanoski, Z., Heller, G. & Eferl, R. IDO1(+) Paneth cells promote immune escape of colorectal cancer. *Communications Biology* **3**, 252, doi:10.1038/s42003-020-0989-y (2020).
- Bousquet Mur, E., Bernardo, S., Papon, L., Mancini, M., Fabbizio, E., Goussard, M., Ferrer, I., Giry, A., Quantin, X., Pujol, J. L., Calvayrac, O., **Moll, H. P.**, Glasson, Y., Pirot, N., Turtoi, A., Canamero, M., Wong, K. K., Yarden, Y., Casanova, E., Soria, J. C., Colinge, J., Siebel, C. W., Mazieres, J., Favre, G., Paz-Ares, L. & Maraver, A. Notch inhibition overcomes resistance to tyrosine kinase inhibitors in EGFR-driven lung adenocarcinoma. *Journal of clinical investigation* **130**, 612-624, doi:10.1172/jci126896 (2020).
- Sdelci, S., Rendeiro, A. F., Rathert, P., You, W., Lin, J. G., Ringler, A., Hofstätter, G., **Moll, H. P.**, Gurtl, B., Farlik, M., Schick, S., Klepsch, F., Oldach, M., Buphamalai, P., Schischlik, F., Majek, P., Parapatics, K., Schmidl, C., Schuster, M., Penz, T., Buckley, D. L., Hudecz, O., Imre, R., Wang, S. Y., Maric, H. M., Kralovics, R., Bennett, K. L., Muller, A. C., Mechtler, K., Menche, J., Bradner, J. E., Winter, G. E., Klavins, K., Casanova, E., Bock, C., Zuber, J. & Kubicek, S. MTHFD1 interaction with BRD4 links folate metabolism to transcriptional regulation. *Nature genetics* **51**, 990-998, doi:10.1038/s41588-019-0413-z (2019).

- Mohrherr, J., Haber, M., Breiteneker, K., Aigner, P., Moritsch, S., Voronin, V., Eferl, R., Moriggl, R., Stoiber, D., Gyorffy, B., Brcic, L., Laszlo, V., Dome, B., Moldvay, J., Dezso, K., Bilban, M., Popper, H., **Moll, H. P.** [✉] & Casanova, E. JAK-STAT inhibition impairs K-RAS-driven lung adenocarcinoma progression. *International journal of cancer* **145**, 3376-3388, doi:10.1002/ijc.32624 (2019).
- **Moll, H. P.**, Pranz, K., Musteanu, M., Grabner, B., Hruschka, N., Mohrherr, J., Aigner, P., Stiedl, P., Brcic, L., Laszlo, V., Schramek, D., Moriggl, R., Eferl, R., Moldvay, J., Dezso, K., Lopez-Casas, P. P., Stoiber, D., Hidalgo, M., Penninger, J., Sibilia, M., Gyorffy, B., Barbacid, M., Dome, B., Popper, H. & Casanova, E. Afatinib restrains K-RAS-driven lung tumorigenesis. *Science translational medicine* **10**, doi:10.1126/scitranslmed.aao2301 (2018).

5. ADDITIONAL RESEARCH ACHIEVEMENTS (10 MAX) :

FUNDING:

2026 – 2030	Austrian Science Fund (FWF-PAT3544225; €450k)
2026 – 2030	Austrian Science Fund (FWF-PAT3003124; €450k)
2024 – 2028	Austrian Science Fund (FWF-PAT5733623; €418k)
2022 – 2024	City of Vienna Fund for Innovative Interdisciplinary Cancer Research (€80k)
2020 – 2024	Austrian Science Fund (FWF-P33430; Co-Applicant with Emilio Casanova (30 % of €400k)
2020 – 2024	Austrian Science Fund (FWF-P32900; Co-Applicant with Emilio Casanova (30 % of €390k)
2018 – 2019	CCC Research Grant (€50k)
2012 – 2014	Erwin Schroedinger Fellowship (FWF-J3398-B23) (€140k)

INTERNATIONAL LECTURES:

07/2025	Lung Cancer: Beyond Inflammation (invited talk at Ulm University, Host: Dr. Jan Tuckermann)
06/2021	A20 in Lung Tumors: Implications for Immunotherapy (Center for Vascular Biology Research, Beth Israel Deaconess Medical Center & Harvard Medical School, Massachusetts, USA, invited lecture, Host: Dr. Carmelo Nucera)
09/2018	Lung tumors escape immune surveillance by downregulation of A20 (EMBO: Cellular signaling and Cancer Therapy, Cavtat, Croatia)