

Curriculum Vitae

Personal Data

Title	Univ.-Prof. Dr. rer. nat.
First name	Daniel Robert
Name	Engel
Current position	Professor of Immunodynamics (W2), permanent
Current institution(s)/site(s), country	University Hospital Essen & University Duisburg-Essen, Institute of Experimental Immunology & Imaging Department of Immunodynamics, Germany Phone: +49 (0)201 723 6055 Email: danielrobert.engel@uni-due.de
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Qualifications and Career

Stages	Periods and Details
Degree programme	1998–2003 Biology (Diploma), Rheinische Friedrich-Wilhelms-University Bonn, Germany; Universidade Estadual de Londrina, Londrina, Brazil; University of Graz, Austria, and University of Bern, Switzerland
Doctorate	2003–2007 Doctorate (PhD), Rheinische Friedrich-Wilhelms-University Bonn, Germany Date of disputation: 15.03.2007
Stages of academic/ professional career	Since 2014 W2 Professor of <i>Immunodynamics</i>, University Hospital Essen, Institute of Experimental Immunology and Imaging Since 2022 Head of the Mass Spectrometry Facility MOSAIC, University Hospital Essen, Imaging Center Essen 2013–2014 Junior research group leader within the Excellence Cluster ImmunoSensation, University Hospital Bonn, Institute of Experimental Immunology 2010–2013 Bonfor-funded Junior research group leader “Cellular and molecular mechanisms of the innate immune response against Uropathogenic <i>E.coli</i>”, University Clinic Bonn, Institute of Experimental Immunology 2007–2010 Postdoctoral Research Fellow, University Clinic Bonn, Institute of Molecular Medicine and Experimental Immunology and Monash University, Department of Medicine, Melbourne, Australia

Supplementary Career Information

3 children, born 2007, 2010 and 2017

Activities in the Research System

Service on Scientific Advisory Boards and leaderships

Since 2023	Head of the “ <i>Mass spectrometry facility for spatial omics, single cell and imaging</i> ” (MOSAIC)
Since 2021	Member of the German Consortium for Translational Cancer Research (DKTK) as “DKTK Investigator”
2021-2022	Advisor for Junior research group for artificial intelligence, ISAS, Dortmund
Since 2015	Leader of the BIOME Core “Infectious Diseases” – DFG-funded Graduate School at the University Duisburg-Essen
Since 2015	Spokesman of the Medical Research Center at the University Hospital Essen

Expert activities (selection)

German Research Foundation, Agence Nationale de la Recherche (France); Wellcome Trust (UK), Medical Research Council (UK), among others

Ad hoc journal reviewer for (selection)

Am Soc Nephrol, J Clin Invest, J Leukoc Biol, Kidney Int, Mucosal Immunol, Nat Commun, Proc Nat Acad Sci, Science Advances, Science, among others

Academic Distinctions

2022	Nominee for the Galenus-von-Pergamon Preis
2013	Young Research Group Award, University Hospital Bonn
2012	Bonfor Junior Research Group
2011	German Society of Immunology: Fritz und Ursula Melchers Award
2009	DAAD scholarship at the Center for Inflammatory Diseases, Monash University, Department of Medicine, Melbourne, Australia
2001–2003	Research Fellowship from the Bayer AG

Supervision of Early Career Investigators

Long-standing and regular contributions to training for MD and PhD students, offering lectures and seminars on topics in Oncology, Inflammation and Immunology. Supervision of 11 completed PhD studies. Ongoing supervision of 3 PhD studies.

Scientific Results – Category A – Top10 publications

^{OA} indicates Open Access

1. ^{OA} Christ, R., Siemes, D., Zhao, S., Widera, L., Spangenberg, P., Lill, J., Thiebes, S., Bottek, J., Borgards, L., Pinho, A. G., Silva, N. A., Monteiro, S., Jorch, S. K., Gunzer, M., Siebels, B., Voss, H., Schluter, H., Shevchuk, O., Chen, J. & **Engel, D. R.** Inhibition of tumour necrosis factor alpha by Etanercept attenuates Shiga toxin-induced brain pathology. *J Neuroinflammation*, 22, 33 (2025). <https://doi.org/10.1186/s12974-025-03356-z>
2. ^{OA} Spangenberg, P., Bessler, S., Widera, L., Bottek, J., Richter, M., Thiebes, S., Siemes, D., Krauss, S. D., Migas, L. G., Kasarla, S. S., Phapale, P., Kleesiek, J., Fuhrer, D., Moeller, L. C., Heuer, H., Van de Plas, R., Gunzer, M., Soehnlein, O., Soltwisch, J., Shevchuk, O., Dreisewerd, K. & **Engel, D. R.** msiFlow: automated workflows for reproducible and scalable multimodal mass spectrometry imaging and microscopy data analysis. *Nat Commun*, 16, 1065 (2025). <https://doi.org/10.1038/s41467-024-55306-7>
3. Lill, J. K., Thiebes, S., Pohl, J. M., Bottek, J., Subramaniam, N., Christ, R., Soun, C., Gueler, F., Zwanziger, D., Hoffmann, F., von Eggeling, F., Bracht, T., Sitek, B., Hickey, M. J., Hofnagel, O. & **Engel, D. R.** Tissue-resident macrophages mediate neutrophil recruitment and kidney injury in shiga toxin-induced hemolytic uremic syndrome. *Kidney Int*, 100, 349-363 (2021). <https://doi.org/10.1016/j.kint.2021.03.039>
4. ^{OA} Subramaniam, N., Bottek, J., Thiebes, S., Zec, K., Kudla, M., Soun, C., de Dios Panal, E., Lill, J. K., Pfennig, A., Herrmann, R., Bruderek, K., Rahmann, S., Brandau, S., Johansson, P., Reinhardt, H. C., Durig, J., Seiffert, M., Bracht, T., Sitek, B. & **Engel, D. R.** Proteomic and bioinformatic profiling of neutrophils in CLL reveals functional defects that predispose to bacterial infections. *Blood Adv*, 5, 1259-1272 (2021). <https://doi.org/10.1182/bloodadvances.2020002949>
5. ^{OA} Bottek, J., Soun, C., Lill, J. K., Dixit, A., Thiebes, S., Beerlage, A. L., Horstmann, M., Urbanek, A., Heuer, H., Uszkoreit, J., Eisenacher, M., Bracht, T., Sitek, B., Hoffmann, F., Vijitha, N., von Eggeling, F. & **Engel, D. R.** Spatial proteomics revealed a CX3CL1-dependent crosstalk between the urothelium and relocated macrophages through IL-6 during an acute bacterial infection in the urinary bladder. *Mucosal Immunol*, 13, 702-714 (2020). <https://doi.org/10.1038/s41385-020-0269-7>
6. ^{OA} Pohl, J. M., Volke, J. K., Thiebes, S., Brenzel, A., Fuchs, K., Beziere, N., Ehrlichmann, W., Pichler, B. J., Squire, A., Gueler, F. & **Engel, D. R.** CCR2-dependent Gr1(high) monocytes promote kidney injury in shiga toxin-induced hemolytic uremic syndrome in mice. *Eur J Immunol*, 48, 990-1000 (2018). <https://doi.org/10.1002/eji.201747138>
7. Dixit, A., Bottek, J., Beerlage, A. L., Schuettpeitz, J., Thiebes, S., Brenzel, A., Garbers, C., Rose-John, S., Mittrucker, H. W., Squire, A. & **Engel, D. R.** Frontline Science: Proliferation of Ly6C(+) monocytes during urinary tract infections is regulated by IL-6 trans-signaling. *J Leukoc Biol*, 103, 13-22 (2018). <https://doi.org/10.1189/jlb.3HI0517-198R>
8. ^{OA} Pohl, J. M., Gutweiler, S., Thiebes, S., Volke, J. K., Klein-Hitpass, L., Zwanziger, D., Gunzer, M., Jung, S., Agace, W. W., Kurts, C. & **Engel, D. R.** Irf4-dependent CD103(+)CD11b(+) dendritic cells and the intestinal microbiome regulate monocyte and macrophage activation and intestinal peristalsis in postoperative ileus. *Gut*, 66, 2110-2120 (2017). <https://doi.org/10.1136/gutjnl-2017-313856>
9. ^{OA} Schiwon, M., Weisheit, C., Franken, L., Gutweiler, S., Dixit, A., Meyer-Schwesinger, C., Pohl, J. M., Maurice, N. J., Thiebes, S., Lorenz, K., Quast, T., Fuhrmann, M., Baumgarten, G., Lohse, M. J., Opdenakker, G., Bernhagen, J., Bucala, R., Panzer, U., Kolanus, W., Grone, H. J., Garbi, N., Kastenmuller, W., Knolle, P. A., Kurts, C. & **Engel, D. R.** Crosstalk between Sentinel and Helper Macrophages Permits Neutrophil Migration into Infected Uroepithelium. *Cell*, 156, 456-468 (2014). <https://doi.org/10.1016/j.cell.2014.01.006>

10. **Engel, D. R.**, Koscielny, A., Wehner, S., Maurer, J., Schiwon, M., Franken, L., Schumak, B., Limmer, A., Sparwasser, T., Hirner, A., Knolle, P. A., Kalff, J. C. & Kurts, C. T helper type 1 memory cells disseminate postoperative ileus over the entire intestinal tract. *Nat Med*, 16, 1407-1413 (2010). <https://doi.org/10.1038/nm.2255>

Data protection and consent to the processing of optional data

☒ I expressly consent to the processing of the voluntary (optional) information, including “special categories of personal data”¹ in connection with the DFG’s review and decision-making process regarding my proposal. This also includes forwarding my data to the external reviewers, committee members and, where applicable, foreign partner organisations who are involved in the decision-making process. To the extent that these recipients are located in a third country (outside the European Economic Area), I additionally consent to them being granted access to my data for the above-mentioned purposes, even though a level of data protection comparable to EU law may not be guaranteed. For this reason, compliance with the data protection principles of EU law is not guaranteed in such cases. In this respect, there may be a violation of my fundamental rights and freedoms and resulting damages. This may make it more difficult for me to assert my rights under the General Data Protection Regulation (e.g. information, rectification, erasure, compensation) and, if necessary, to enforce these rights with the help of authorities or in court.

I may **revoke** my consent in whole or in part at any time – with effect for the future, freely and without giving reasons – vis-à-vis the DFG (postmaster@dfg.de). The lawfulness of the processing carried out up to that point remains unaffected. Insofar as I transmit “special categories of personal data” relating to third parties, I confirm that the necessary legitimisation under data protection law exists (e.g. based on consent). I have taken note of the DFG’s Data Protection Notice relating to research funding, which I can access at www.dfg.de/privacy_policy and I will forward it to such persons whose data the DFG processes as a result of being mentioned in this CV.

¹ Special categories of personal data are those “revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and (...) genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person’s sex life or sexual orientation” (Article 9(1) GDPR).