

Prof. Michael Sieweke, PhD

1 | General information

Contact details: Center for Regenerative Therapies Dresden (CRTD)
Technische Universität Dresden (TU Dresden)
Fetscherstrasse 105, 01307 Dresden

Tel.: +49 (0)351 458-82200
E-mail: Michael.sieweke@tu-dresden.de



Current position: Alexander von Humboldt Professor for Stem Cell Research and cell-based Approaches in Regenerative Biomedicine (W3), Deputy Director Center for Regenerative Therapies Dresden (CRTD), Technische Universität Dresden (TU Dresden)

Researcher unique identifier(s): ORCID-ID: 0000-0002-3228-9537

2 | Academic education

1986 – 1991 PhD Program in Biochemistry, Cell and Molecular Biology, University of California, Berkeley, USA
1984 – 1986 Undergraduate Program in Biochemistry, Eberhard-Karls University, Tübingen

3 | Advanced academic qualifications:

1999 Habilitation and *venia legendi*, Molecular Biology, “Partner proteins of the transcription factor *Ets-1* in hematopoietic differentiation”, Ruprecht-Karls University, Heidelberg (Mentor: Thomas Graf)
1991 PhD thesis “Wound-Induced Transforming Growth Factor- β is a Cocarcinogen in Rous Sarcoma Virus Tumorigenesis”, University of California, Berkeley, USA (Supervisor: Mina Bissell)

4 | Postgraduate professional career:

Since 2019 Deputy Director, Center for Regenerative Therapies Dresden (CRTD), Technische Universität Dresden, Dresden
Since 2018 Alexander-von-Humboldt Professorship, Technische Universität Dresden, Center for Regenerative Therapies Dresden (CRTD), Dresden
2012 – 2018 INSERM-Helmholtz Group Leader, Max-Delbrück-Center for Molecular Medicine, Berlin
Since 2010 Research Director / Directeur de Recherche 1ere classe at the Centre National de la Recherche Scientifique (CNRS), Marseille, France
Since 1999 Group Leader at Centre d’Immunologie de Marseille Luminy (CIML), Directeur de Recherche 2 eme classe, Marseille, France
1996 – 1998 Staff scientist / Junior faculty, Cell Regulation and Developmental Biology Program, EMBL, Heidelberg
1991 – 1995 Postdoctoral fellow with Dr. Thomas Graf, Differentiation Program EMBL, Heidelberg

5 | Other:

Awards/Honors

- Alexander-von-Humboldt Professorship (2018)
- CNRS Silver Medal (2017)
- Laureate of ERC Advanced Grant (2016)
- EMBO Member (2014)
- Einstein BIH Visiting Fellow (2014)
- INSERM-Helmholtz Franco-German research cooperation grant (2012)
- FRM group (prestigious label of Fondation pour la Recherche Médicale) (2007 – 2010; 2011 – 2014)

- Prix AXA from the French Academy of Science (2010)
- ATIPE, French Young Investigator Award (1999 – 2001)
- Installation grant Communauté de Communes, Marseille Provence Métropole (1999)
- EMBO Fellowship (1992 – 1994)
- Böhringer Ingelheim Fonds Fellowship (1991 – 1992)
- Josephine de Karman Fellowship (1989 – 1990)
- Julian D. Morgan Regents of the University of California Fellowship (1989 – 1990)
- Regents of the University of California Fellowship – most prestigious Award of the University (1988 – 1989)
- Department of Comparative Biochemistry stipend, UC Berkeley (1987 – 1988)
- Exchange Scholar Award University Tübingen/ UC Berkeley (1986 – 1987)

6 | Selected publications:

1. Subramanian S, Busch CJL, Molawi K, Geirsdottir L, Maurizio J, Vargas-Aguilar S, Belahbib H, Gimenez G, Yuda RAA, Burkon M, Favret J, Gholamhosseinian Najjar S, de Laval B, Kandalla PK, Sarrazin S, Alexopoulou L, **Sieweke MH**. Long-term culture expanded alveolar macrophages restore full epigenetic identity in vivo. **Nat. Immunol** 2022; 23(3):458-468
2. de Laval B, Maurizio J, Kandalla PK, Brisou G, Simonnet L, Huber C, Gimenez G, Matcovitch-Natan O, Reinhardt S, David E, Mildner A, Leutz A, Nadel B, Bordi C, Amit I, Sarrazin S, **Sieweke MH**. C/EBP β -Dependent Epigenetic Memory Induces Trained Immunity in Hematopoietic Stem Cells. **Cell Stem Cell** 2020; 26:657-674
3. Imperatore F, Maurizio J, Vargas Aguilar S, Busch CJ, Favret J, Kowenz-Leutz E, Cathou W, Gentek R, Perrin P, Leutz A, Berruyer C, **Sieweke MH**. SIRT1 regulates macrophage self-renewal. **EMBO J** 2017; 36:2353-2372
4. Kandalla PK, Sarrazin S, Molawi K, Berruyer C, Redelberger D, Favel A, Bordi C, de Bentzmann S, **Sieweke MH**. M-CSF improves protection against bacterial and fungal infections after hematopoietic stem/progenitor cell transplantation. **J Exp Med** 2016; 213: 2269-2279
5. Matcovitch-Natan O, Winter DR, Giladi A, Vargas Aguilar S, Spinrad A, Sarrazin S, Ben-Yehuda H, David E, González FZ, Perrin P, Keren-Shaul H, Gury M, Lara-Astaiso D, Thaïss CA, Cohen M, Halpern KB, Baruch K, Deczkowska A, Lorenzo-Vivas E, Itzkovitz S, Elinav E, **Sieweke MH***, Schwartz M*, Amit I*. Microglia development follows a stepwise program to regulate brain homeostasis. **Science** 2016; 353:aad8670
6. Soucie EI, Weng Z, Geirsdóttir L, Molawi K, Maurizio J, Fenouil R, Mossadegh-Keller N, Gimenez G, VanHille L, Beniazza M, Favret J, Berruyer C, Perrin P, Hacohen N, Andrau JC, Ferrier P, Dubreuil P, Sidow A, **Sieweke MH**. Lineage-specific enhancers activate self-renewal genes in macrophages and embryonic stem cells. **Science** 2016; 351:aad5510
7. Molawi K, Wolf Y, Kandalla PK, Favret J, Hagemeyer N, Frenzel K, Pinto AR, Klapproth K, Henri S, Malissen B, Rodewald HR, Rosenthal NA, Bajenoff M, Prinz M, Jung S, **Sieweke MH**. Progressive replacement of embryo-derived cardiac macrophages with age. **J Exp Med** 2014; 211:2151-8
8. **Sieweke MH**, Allen JE. Beyond Stem Cells: self-renewal of differentiated macrophages. **Science** 2013; 342: 1242974
9. Mossadegh-Keller N, Sarrazin S, Kandalla PK, Espinosa L, Stanley ER, Nutt SL, Moore J, **Sieweke MH**. M-CSF instructs myeloid lineage fate in single haematopoietic stem cells. **Nature** 2013; 497:239-43
10. Aziz A, Soucie E, Sarrazin S, **Sieweke MH**. MafB/c-Maf deficiency enables self-renewal of differentiated functional macrophages. **Science** 2009; 326:867-71

*contributed equally