

## Curriculum Vitae

### Personal information

### Egbert Flory

### Work experience

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1. Employer: Paul\_Ehrlich Institut (PEI), Langen
  - Start date: 2002
  - End date:
  - Position: Head of Group Cell Therapy
  - Activities: German (Altn) Member of the Committee for Advanced Therapies at the European Medicines Agency (EMA), London, UK Responsible for Somatic Cell Therapy & Tissue\_Engineering Products: Assessment of marketing authorization applications, clinical trial applications and scientific advices for cell\_based medicinal products; National Expert Advisor & Participation on Good Manufacturing Practice (GMP) related matters; Expert Advisor for Advanced Therapies of the German Federal Ministry of Health Development and Execution of Basic Research in the areas: Virus/host interactions: Intracellular signalling mechanisms by immunodeficiency viruses; Molecular mechanism of differentiation in human adult stem cells
  - Country: Germany
2. Employer: Paul\_Ehrlich Institut (PEI), Langen
  - Start date: 1999
  - End date: 2001
  - Position: Research Group Leader
  - Activities: Development and Execution of Basic Research in the areas: Signal transduction pathways regulating immunodeficiency virus gene expression; Characterization of viral & cellular determinants in lentiviral pathogenesis; Development of retroviral gene transfer vectors to interfere with signaling pathways
  - Country: Germany
3. Employer: University Hospital Rostock, Institute of Dermatology and Venerology
  - Start date: 1998
  - End date: 1999
  - Position: Head of Diagnostic Laboratory
  - Activities: Dermatology Diagnostic Laboratory and Research on human malignant melanoma signaling
  - Country: Germany
4. Employer: Julius\_Maximilian University of Wuerzburg, Institute of Medical Radiation and Cell Research
  - Start date: 1995
  - End date: 1998
  - Position: Post\_doctoral Scientist
  - Activities: Basic Research on Mitogen activated protein kinase (MAPK) signaling pathways regulating NF\_kappa B and HIV\_1 gene expression in immune cells
  - Country: Germany
5. Employer: Laboratory of Viral Carcinogenesis, National Institute of Health (NIH), National Cancer Institute (NCI), Frederick, Maryland, U.S.A.
  - Start date: 1994
  - End date: 1995
  - Position: Research Fellow
  - Activities: Basic Research on Raf\_kinase dependent intracellular signal transduction pathways
  - Country: United States

### Education and training

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1. Subject: Julius\_Maximilian University of Wuerzburg, Institute of Virology and Immunobiology
  - Start date: 1990
  - End date: 1993
  - Qualification: PhD thesis on "Coronavirus\_induced demyelinating encephalomyelitis: immune reactions against defined viral structure proteins influence the disease process"
  - Organisation: PhD in Biology
  - Country: Germany
2. Subject: Julius\_Maximilian University of Wuerzburg
  - Start date: 1982
  - End date: 1990
  - Qualification: Diploma Degree in Biology
  - Organisation: Diploma thesis on "influence of antiviral antibodies on persistent coronavirus infections in rat glia\_cell cultures"
  - Country: Germany

### Additional information

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#### Publications

(20 Latest Peer\_reviewed journals) Horn AV, Klawitter S, Held U, Berger A, Jaguva Vasudevan AA, Bock A, Hofmann H, Hanschmann KM, Trösemeier JH, Flory E, Jabulowsky RA, Han JS, Löwer J, Löwer R, Münk C, Schumann GG. (2013). Human LINE\_1 restriction by APOBEC3C is deaminase independent and mediated by an ORF1p interaction that affects LINE reverse transcriptase activity. Nucleic Acids Res. Oct 7. [Epub ahead of print] Melchiorri D, Pani L, Gasparini P, Cossu G, Ancans J, Borg JJ, Draai C, Fiedor P, Flory E, Hudson I, Leufkens HG, Müller\_Berghaus J, Narayanan G, Neugebauer B, Pokrotnieks J, Robert JL, Salmonson T, Schneider CK. (2013). Regulatory evaluation of Glybera in Europe \_ two committees, one mission. Nature Rev Drug Discov. 12(9):719. Barkholt L, Flory E, Jekerle

V, Lucas\_Samuel S, Ahnert P, Bisset L, Büscher D, Fibbe W, Foussat A, Kwa M, Lantz O, Mačiulaitis R, Palomäki T, Schneider CK, Sensebé L, Tachdjian G, Tarte K, Tosca L, Salmikangas P. (2013). Risk of tumorigenicity in mesenchymal stromal cell based therapies\_bridging scientific observations and regulatory viewpoints. *Cyotherapy*. 15(7):753\_9. Reinhardt J, Flory E, Büttel I, Schröder C, Fricke S, Vucinic V, Cross M, and D. Niederwieser (2013). MSCs: Clinical Application & EU Regulatory Aspects. *Stem Cell Biology and Regenerative Medicine*, Springer Science & Business Media New York. Baldauf HM, Pan X, Erikson E, Schmidt S, Daddacha W, Burggraf M, Schenkova K, Ambiel I, Wabnitz G, Gramberg T, Panitz S, Flory E, Landau NR, Sertel S, Rutsch F, Lasitschka F, Kim B, König R, Fackler OT, Keppler OT. (2012). SAMHD1 restricts HIV\_1 infection in resting CD4(+) T cells. *Nature Med.* 18: 753\_9. Kopietz F., Krämer M., Muckenfuss H., Sanzenbacher R., Cichutek K., Flory E., Münk C. (2012). Interaction of Vif with APOBEC3G is not Dependent on Serine/Threonine Phosphorylation Status. *J. Gen Virol.* 93:2425\_30. Berger A, Sommer AF, Zwart J, Hamdorf M, Welzel K, Esly N, Panitz S, Reuter A, Ramos I, Jatiani A, Mulder LC, Fernandez\_Sesma A, Rutsch F, Simon V, König R, Flory E. (2011). SAMHD1-deficient CD14+ cells from individuals with Aicardi\_Goutières syndrome are highly susceptible to HIV\_1 infection. *PLoS Pathog.* 7:e1002425\_101371. Berger A, Schüle S, and E. Flory. (2011). The certification of advanced therapy medicinal products : A quality label for product development in small and medium sized enterprises. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz:* 54: 816\_821. Hamdorf, M., Berger, A., Schüle, S., Reinhardt, R. and E. Flory. (2011). PKC induced PU.1 phosphorylation promotes hematopoietic stem cell differentiation to dendritic cells. *Stem Cells* 29: 297\_306. Tschulena, U., Sanzenbacher, R., Mühlbach, M., Berger, A., Münch, J., Schindler, Kirchoff, F., M., Plesker, R., Coulibaly, C., Raupp, S., Prüfer, S., Muckenfuss, H., Schweizer, M., Cichutek, K. and E. Flory. (2011). Mutation of a diacidic motif in SIV\_PBj Nef impairs T\_cell activation and enteropathic disease. *Retrovirology* 8: 14. Committee for Advanced Therapies (CAT); CAT Scientific Secretariat, Schneider CK, Salmikangas P, Jilma B, Flamion B, Todorova LR, Paphitou A, Haunerova I, Maimets T, Trouvin JH, Flory E, Tsiftsoglou A, Sarkadi B, et al. (2010). Use of unregulated stem\_cell based medicinal products. *Lancet* 376: 514. Salmikangas P, Flory E, Reinhardt J, Hinz T, Maciulaits R. (2010). Regulatory requirements for clinical trial and marketing authorisation application for cell\_based medicinal products. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz:* 53: 24\_9. Berger A, Münk C, Schweizer M, Cichutek K, Schüle S and E. Flory. (2010). Interaction of Vpx and apolipoprotein B mRNA\_editing catalytic polypeptide 3 family member A (APOBEC3A) correlates with efficient lentivirus infection of monocytes. *J Biol Chem.* 285: 12248\_54. Committee for Advanced Therapies (CAT); CAT Scientific Secretariat, Schneider CK, Salmikangas P, Jilma B, Flamion B, Todorova LR, Paphitou A, Haunerova I, Maimets T, Trouvin JH, Flory E, et al. (2010). Challenges with advanced therapy medicinal products and how to meet them. *Nature Rev Drug Discov.* 9: 195\_201. Perković M, Norley S, Sanzenbacher R, Battenberg M, Panitz S, Coulibaly C, Flory E, Siegismund C, Münk C, Cichutek K. (2010). SIVAgm containing the SHIV89.6P Envelope gene replicates poorly and is non\_pathogenic. *Virology* 399: 87\_97. Pauli EK, Schmolke M, Hofmann H, Ehrhardt C, Flory E, Münk C, Ludwig S. (2009). High level expression of the anti\_retroviral protein APOBEC3G is induced by influenza A virus but does not confer antiviral activity. *Retrovirology* 6: 38. Taylor, A., Verhagen, J., Akkoc, T., Wenig, R., Flory, E., Blaser, K., Akdis, M. and C. Akdis. (2008). IL\_10 suppresses CD2 mediated T cell activation via SHP\_1. *Mol. Immunol.* 46: 622\_629. Montag, T., Nicol, S., Schurig, U., Heiden, M., Huber, H., Sanzenbacher, R., Flory, E., Schwanig, M., and C. Schneider. (2008). Microbial safety of cell based medicinal products \_ what can we learn from cellular blood components. *Clin. Chem. Lab. Med.* 46: 963\_965. Sanzenbacher, R., Dwenger, A., Schuessler\_Lenz, M., Cichutek, K. and E. Flory. (2007). European regulation tackles tissue\_engineering. *Nature Biotechnol.* 25: 1089\_1091.

## Projects

Scientific activities in the research areas: Virus/host interactions: Intracellular signalling mechanisms by immunodeficiency viruses; Molecular mechanism of differentiation in human adult stem cells

## Memberships

Since 2009: German Member of the Committee for Advanced Therapies (CAT) at the European Medicines Agency (EMA), London, UK 2010 – 2012: Co\_Chair of the Committee for Advanced Therapy (CAT) Working Party on Cell\_based Products (CPWP) at the European Medicines Agency (EMA), London, UK 2010 – 2012: Core\_Member of CAT Working Party on Cell\_based Products at the European Medicines Agency (EMA), London, UK 2006 – 2010: Co\_Chair of the Committee for Human Medicinal Products (CHMP) Working Party on Cell\_based Products (CPWP) at the European Medicines Agency (EMEA), London, UK 2005 – 2010: Core\_Member of CHMP Working Party on Cell\_based Products at the European Medicines Agency (EMEA), London, UK

## Other Relevant Information