

## **Czermak, Peter, Prof. Dr.-Ing.**

Date of Birth 27.01.1959

Technische Hochschule Mittelhessen  
University of Applied Sciences of Central Hessen  
Wiesenstrasse 14  
35390 Giessen, Germany  
Phone: +49 641 309 2551  
E-Mail: peter.czermak@lse.thm.de

Position Professor

### **1) Academic Education**

1978 - 1984 MSc (Dipl.-Ing.) Chemical Engineering / Biochemical Engineering, University of Stuttgart and Technical University of Dortmund, Germany

### **2) Advanced Professional Degrees**

1990 PhD (Dr.-Ing.) Bioprocess Engineering Technical University of Munich / Fraunhofer Institute Munich, Germany

### **3) Positions Held**

since 1991 Professor of Bioprocess Engineering, Membrane Technology and Cell Culture Technology at the THM Giessen (University of Applied Science Giessen) Department of Biotechnology

since 2004 Managing Director of the Institute of Bioprocess Engineering and Pharmaceutical Technology IBPT at the THM, Giessen (University of Applied Sciences of Central Hessen, Giessen)

### **4) Other Activities**

#### ***Honors and Awards***

1997 Ring of Honour of the German Association of Engineers for outstanding achievements for scientists aged under 40 years in science and professional life

2003 Honorary plaque of the Association of German Engineers for voluntary engagement

2008 Hessian Research Award for Applied Sciences

2010 Hessian Research Award for Applied Sciences

2014 Medal of Honor of the Association of German Engineers for outstanding honorary achievements for science, technology and society

#### ***Other Professional Activities***

1984-1986 Oncological Research Laboratory of the University of Heidelberg, Germany and Immuno GmbH Heidelberg, Germany, Development of ELISA and RIA-Test-Systems

1986-1991 Applied Research and the chemical/pharmaceutical industry (Akzo Nobel AG) in the field of Bioprocess Engineering and in the production of industrial fibers

1994-2000 CEO of the Biotechnology Association Central Hessen, Giessen (BIM)

since 2001 Managing Director of the TransMIT Center of Bioprocess Engineering and Membrane Technology

2002-2006 Managing Director of the regional part of the German Engineer Association (VDI)

since 2004 Professor in Chemical Engineering (adjust) at the Faculty of Engineering, Department of Chemical Engineering, Kansas State University, Manhattan, Kansas, USA

2004-2006	Executive Vice-President of the Department KUT of the German Engineering Association (VDI)
2006-2010	Executive Vice-President of the regional part of the German Engineering Association (VDI)
2007-2009	President of the Department KUT of the German Engineering Association (VDI)
2010-2016	President of the regional part of the German Engineering Association (VDI)
2010-2013	Executive Vice-President of the DECHEMA work group Food Biotechnology
since 2011	Professor h.c. at the Faculty 08 – Biology and Chemistry – at the Justus Liebig University Giessen
since 2013	Vice-head of the Fraunhofer project group “Bio-Ressources” of the Fraunhofer Institute of Molecular Biology and Applied Ecology

### **Memberships in Learned Societies**

#### **5) Publications - 10 most important out of 101, H-index: 26 (Google Scholar Profile, March 2018)**

1. Grein T A, H Dieken, D Loewe, D Salzig, T Weidner, P Czermak: High titer oncolytic measles production process by integration of dielectric spectroscopy as online monitoring system, *Biotechnology and Bioengineering*, online available <https://dx.doi.org/10.1002/bit.26538>
2. Hoffmann D, M Ebrahimi M, D Gerlach, D Salzig, P Czermak: Reassessment of inclusion body-based production as a versatile opportunity for difficult to express recombinant proteins, *Critical Reviews in Biotechnology*, online available <https://dx.doi.org/10.1080/07388551.2017.1398134>
3. Weidner T, D Druzinec, M Mühlmann, R Buchholz, P Czermak: The components of shear stress affecting insect cells used with the baculovirus expression vector system, *Zeitschrift für Naturforschung C: A Journal of Biosciences* 72 (2017) 9-10, 429-439  
<https://doi.org/10.1515/znc-2017-0066>
4. Zitzmann J, T Weidner, P Czermak: Optimized expression of the antimicrobial protein Gloverin from *Galeria melonella* using stably transformed *Drosophila melanogaster* S2 cells, *Cytotechnology* 69 (2017) 2, 371-369  
<http://dx.doi.org/10.1007/s10616-017-0068-5>
5. Schreiber C, Müller H, O Birrenbach, M Klein, D Heerd, T Weidner, D Salzig, P Czermak: A high-throughput expression screening platform to optimize the production of antimicrobial peptides, *Microbial Cell Factories* 16 (2017) 1, 29ff  
<http://dx.doi.org/10.1186/s12934-017-0637-5>
6. Grein T A, F Schwebel, M Kress, D Loewe, H Dieken, D Salzig, T Weidner, P Czermak: Screening Different Host Cell Lines for the Dynamic Production of Measles Virus, *Biotechnology Progress* 33 (2017) 4, 989-997  
<http://dx.doi.org/10.1002/btpr.2432>
7. Spohner S C, P Czermak: Title: Heterologous expression of *Aspergillus terreus* fructosyltransferase in *Kluyveromyces lactis*, *New Biotechnology* 33 (2016) 4, 473-479  
<http://dx.doi.org/10.1016/j.nbt.2016.04.001>
8. Spohner S C, V Schaum, H Quitmann, P Czermak: *Kluyveromyces lactis* an emerging tool in biotechnology, *Journal of Biotechnology* 222 (2016) 104-116  
<http://dx.doi.org/10.1016/j.jbiotec.2016.02.023>
9. Eisenhardt M, Dobler D, Schlupp P, Schmidts T, Salzig M, Vilcinskas A, Salzig D, Czermak P, Keusgen M, Runkel F: Development of an insect metalloproteinase inhibitor (IMPI) drug carrier system for application in chronic wound infections, *Journal of Pharmacy and Pharmacology* 67 (2015) 11, 1481-1491  
<http://dx.doi.org/10.1111/jphp.12452>
10. Weiss K, J Gerstenberger, D Salzig, M Mühlebach, K Cichutek, R Pörtner, P Czermak: Oncolytic measles viruses produced at different scales under serum-free conditions, *Engineering in Life Sciences* 15 (2015) 4, 425-436  
<http://dx.doi.org/10.1002/elsc.201400165>

11. Fan R, M Ebrahimi, H Quitmann, P Czermak (2015). Lactic acid production in a membrane bioreactor system with thermophilic *Bacillus coagulans*: performance of the used ceramic membranes, *Separation Science and Technology*, in press, <http://dx.doi.org/10.1080/01496395.2015.1031401>
12. Kuhn J, H Müller, D Salzig, P Czermak (2015). A new method for a rapid glycerol determination during microbial fermentation, *Electronic Journal of Biotechnology*, 18: 3, 252-255, <http://dx.doi.org/10.1016/j.ejbt.2015.01.005>
13. Spohner S, H Müller, H Quitmann, P Czermak (2015). Expression of technical enzymes for the usage in food and feed industry with *Pichia pastoris*, *Journal of Biotechnology*, 202: 118-134, <http://dx.doi.org/10.1016/j.jbiotec.2015.01.027>
14. Druzinec D, D Salzig, M Kraume, P Czermak (2015). Micro-bubble Aeration in Turbulent Stirred Bioreactors: Coalescence Behavior in Pluronic F68 Containing Cell Culture Media, *Chem. Eng. Sci.* 126: 160–168, <http://dx.doi.org/10.1016/j.ces.2014.12.020>
15. Müller H, D Salzig, P Czermak (2015). Considerations for up and downstream processing of antimicrobial peptide production, *Biotechnol. Progress* 31: 1-11, <http://dx.doi.org/10.1002/btpr.2002>

## 6) 6. Publications of project leaders

16. Elseberg C L, D Salzig, P Czermak (2015): Bioreactor expansion of human mesenchymal stem cells according to GMP requirements, *Meth. Mol. Biol.* 1283: 199-21
17. Busse N, D Wagner, M Kraume, P Czermak (2013). Reaction kinetics of versatile peroxidase for the degradation of lignin compounds, *American J Biochem Biotechnol* 9: 365-394
18. Justice C, J Leber, D Salzig, C Wallrapp, M Kraume, M Kassem, P Czermak (2012). Microcarrier based expansion process of hMSCs in highly vital and non-differentiated quality, *Int J Artif Organs* 35: 2, 93-107
19. Weiss K, Salzig D, Mühlebach M D, Cichutek K, Pörtner R, Czermak P (2012). Parameters for Optimizing Production of Measles Virus with regard to Oncolytic Virotherapy, *American J Biochem. Biotechnol.* 8: 2, 81-98
20. Paulen R, G Foley, M Fikar, Z Kovacs, P Czermak (2011). Minimizing the process time for ultrafiltration/diafiltration under gel polarization conditions, *J Membrane Sci* 380: 148-154
21. Justice C, Brix A, Freimark D, Kraume M, Pfromm P, Eichenmueller B, Czermak P (2011). Process Control in Cell Culture Technology Using Impedance Spectroscopy, *Biotechnol. Advances* 29, 391–401
22. Weber C, S Pohl, R Poertner, P Pino-Grace, D Freimark, C Wallrapp, P Geigle, P Czermak (2010). Production process for stem cell-based therapeutic implants - Expansion of the production cell line and cultivation of encapsulated cells, *Adv. Biochem. Eng. Biotechnol.* 123: 143-162
23. Kramer M, J C Cruz, P H Pfromm, M E Rezac, P Czermak (2010). Enantioselective transesterification by *Candida antarctica* Lipase B immobilized on fumed silica, *J. Biotechnology* 150: 80–86