

## Hanspeter Herzel (\* 1957)

### Personal details

Date of birth July 13, 1957  
Place of birth Güstrow, Germany  
Nationality German  
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Biology, Invalidenstr. 43, 10115 Berlin, Germany  
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Title/Position Prof. Dr.



### Education

1990 Habilitation, Humboldt-Universität  
1984-1986 PhD in Theoretical physics (degree Dr. rer. nat.), Humboldt-Universität  
1979-1984 Studies in Physics (degree: Diploma), Humboldt-Universität

### Carreer/Employment

since 2003 Professor of Theoretical Biology, Charité  
1996-2003 Professor of Molecular and Cellular Evolution, Humboldt-Universität  
1993-1996 Heisenberg Fellow, Technische Universität Berlin & University of Iowa, USA  
1986-1993 Research Assistant, Humboldt-Universität, Moscow University, University  
Bremen

### Research Fields

i) Main field: Theoretical Biology  
ii) Other fields: Nonlinear Dynamics, Bioinformatics, Gene Regulation  
iii) Current research interest: Generation and synchronization of circadian rhythms

### Honours, Awards, Grants, Fellowships, Memberships in Professional Societies

|            |            |  |
|------------|------------|--|
| Grants     | since 2002 | Board Member of SFB 618 "Theoretical Biology" (DFG)      |
|            | since 2009 | Coordinator "ColoNet" (BMBF, with Sers)                  |
|            | 2007-2009  | Coordinator of IRTG "Genomics and Systems Biology" (DFG) |
|            | 1996       | Co-founder of the Institute for Theoretical Biology      |
| Fellowship | 1993-1996  | Heisenberg Fellowship of the DFG                         |
| Award      | 1986       | Humboldt-prize for doctoral thesis                       |

### **Collaborative Research Projects (selection)**

|                      |  |
|----------------------|--|
| Funding organisation | Deutsche Forschungsgemeinschaft            |
| Project title        | SFB 618, projects A4 and B7                |
| Function             | Board member                               |
| Speaker University   | Humboldt-Universität                       |
| Project Period       | 2002-2013                                  |
|                      |  |
| Funding organisation | BMBF                                       |
| Project title        | ColoNet                                    |
| Function             | Coordinator (together with Christine Sers) |
| Speaker University   | Charité                                    |
| Project Period       | 2009-2012                                  |
|                      |  |
| Funding organisation | EU   |
| Project title        | NoE Biosimulation                          |
| Function             | Principal investigator                     |
| Speaker University   | DTU Lyngby, Denmark                        |
| Project Period       | 2004-2009                                  |

### **Experiences in Doctoral Education**

|                        |    |
|------------------------|----|
| Number of PhD Students | 24 |
| Number of MSc Students | 27 |

### **Selected Publications**

1. U. Abraham, A. Granada, P.O. Westermark, M. Heine, A. Kramer, and H. Herzel (2010) Coupling governs entrainment range of circadian clocks. *Mol. Syst. Biol.*, in press.
2. S. Bernard, B. Cajavec Bernard, F. Levi, and H. Herzel (2010) Tumor growth rate determines the timing of optimal chronomodulated treatment schedules. *PLoS Computational Biology*, 6:e1000712.
3. P.O. Westermark, D.K. Welsh, H. Okamura, and H. Herzel (2009) Quantification of circadian rhythms in single cells. *PLoS Computational Biology*, 5:e1000580.
4. K. Bozek, A. Relogio, S.M. Kielbasa, M. Heine, C. Dame, A. Kramer, and H. Herzel (2009) Regulation of clock-controlled genes in mammals. *PLoS ONE*, 4:e4882
5. M. Futschik and H. Herzel (2008) Are we overestimating the number of cell-cycling genes? The impact of background models on time series analysis. *Bioinformatics*, 24, 1063-1069.
6. C.P. Elemans, R. Zaccarelli, and H. Herzel (2008). Biomechanics and control of vocalization in a non-songbird. *J. Royal Society Interface*, 5:691-703.
7. S.A. Brown, D. Kunz, A. Dumas, P.O. Westermark, K. Vanselow, A. Tilmann-Wahnschaffe, H. Herzel, and A. Kramer (2008). Molecular insights into human daily behavior. *Proc. Nat. Acad. Sci. USA*, 105, 1602-1607.
8. S. Legewie, N. Blüthgen, and H. Herzel (2006) Mathematical Modeling Identifies Inhibitors of Apoptosis as Mediators of Positive Feedback and Bistability. *PLoS Computational Biology*, 2:e120.
9. D. Gonze, S. Bernard, C. Waltermann, A. Kramer and H. Herzel (2005). Spontaneous synchronization of coupled circadian oscillators. *Biophysical J.*, 89, 120-129.
10. N. Blüthgen, S.M. Kielbasa, and H. Herzel. Inferring combinatorial regulation of transcription in silico. *Nucleic Acids Research*, 33, 272-279 (2005).