

Other positions

since 10.2011	member of the advisory board for Bielefeld Center for Interdisciplinary Research (ZiF)
since 11.2009	chairman of the Dechema task force for cell culture technology
since 04.2008	member of Scientific Advisory Board for Max-Planck Institute for Dynamic of complex technical systems, Magdeburg
since 2007	member of the Dechema task force for cell culture technology
04.2008 – 09.2010	member of the executive board of CeBiTec (Center for Biotechnology at the University Bielefeld)
2008 - 2010	Speaker of Institute of Biochemistry and Bioengineering (BioChemTec) at Bielefeld Centre of Biotechnology (CeBiTec)
2007 – 2008	Vice-speaker of Institute of Biochemistry and Bioengineering (BioChemTec) at Bielefeld Centre of Biotechnology (CeBiTec)
2006 - 2010	member of the board of Biotech Region OWL
2004 - 2007	member of the organising committee for the 20th conference of the European Society for Animal Cell Culture (ESACT) 2007 in Dresden
2002 - 2009	member of the steering committee of stem cell network NorthRhine Westfalia

Research Interests

- animal cell process development
- development and optimization of cell culture media
- development of genomic, transcriptomic, metabolomic and proteomic tools for mammalian cells
- functional genomics as a tool for cell culture process development and cell characterization

Publications

1. Noll T, Biselli M, Wandrey C (1997): *On-line biomass monitoring of immobilized hybridoma cells by dielectrical measurements*. In: Animal cell technology (M.J.T.Carrondo et al, eds.), Kluwer Acad Publ, 289-294
2. Noll T, Biselli M (1998): *Dielectric spectroscopy in the cultivation of suspended and immobilized hybridoma cells*. J Biotechnol, 63, 187-198
3. Noll T, Mühlensiepen H, Engels R, Hamacher K, Papaspyrou M, Langen KJ, Biselli M (2000): *A cell culture reactor for the on-line evaluation of radiopharmaceuticals: Evaluation of the lumped constant of FDG in human glioma cells*. J Nucl Med, 41, (3): 556-564
4. Bohnenkamp H, Hilbert U, Noll T (2001): *Bioprocess Development for the cultivation of human T-lymphocytes*, in Lindner-Olsson E, Chatzissavidou N, Lüllau E (eds.) 'From target to market', Kluwer Academic Publishers, Dordrecht, 503-508
5. Hilbert U, Biselli M, Noll T (2001): *Cultivation of human CMV-specific lymphocytes - an example for adoptive immunotherapy*, in Lindner-Olsson E, Chatzissavidou N, Lüllau E (eds.) 'From target to market', Kluwer Academic Publishers, Dordrecht, 558-561
6. Noll T (2001): *High cell density cultivation of mast cells in fluidized-bed and fixed-bed bioreactors*, in Lindner-Olsson E, Chatzissavidou N, Lüllau E (eds.) 'From target to market', Kluwer Academic Publishers, Dordrecht, 26-28
7. Paul W, de Graaf A, Marx A, Wagner R, Noll T (2001): *Metabolic flux analysis in mammalian cells - network modelling as an example for metabolic design in recombinant BHK cells*, in Lindner-Olsson E, Chatzissavidou N, Lüllau E (eds.) 'From target to market', Kluwer Academic Publishers, Dordrecht, 136-141
8. Noll T, Jelinek N, Schmidt S, Biselli M, Wandrey M (2002): *Cultivation of Hematopoietic Stem and Progenitor Cells: Biochemical Engineering Aspects*. Advances in Biochemical Engineering and Biotechnology, Vol. 74, 111-128
9. Noll T, Eisenkrätzer D, Kiesewetter A, Dinter A, Zeng S, Wandrey C, Biselli M, Berger EG (2002): *Improved product formation in high density Chinese hamster ovary cell cultures transfected at confluency*. Biotechnol Lett, 24, 861-866
10. Bohnenkamp H, Hilbert U, Noll T (2002) *Bioprocess Development for the Cultivation of human T-lymphocytes in a clinical scale*, Cytotechnology, 38, 135-145
11. Link T, Zörner K, Backström M, Hansson G, Wandrey C, Noll T (2002): *Integrierte Bioprozessentwicklung zur Produktion eines potentiellen Tumovaccins in rekombinanten CHO-Zellen*' CIT, 74:671
12. Paul W, Kribben T, Gätgens J, de Graaf A, Marx A, Noll T, Wandrey C (2002): *Identifizierung von Stoffwechsellimitierungen mit Hilfe der metabolic flux analysis am Beispiel des Nukleotidstoffwechsels von rekombinanten BHK-Zellen*' CIT, 74:690
13. Bäckström M, Link T, Olson FJ, Karlsson H, Graham R, Picco G, Burchell J, Taylor-Papadimitriou J, Noll T, Hansson GC (2003) *Recombinant MUC1 with breast cancer-like O-glycosylation produced in large amounts in CHO-K1 cells*, Biochem J, 376, 677-686
14. Noll T (2003) *Stammzellen – Möglichkeiten ihrer Expansion am Beispiel hämatopoetischer Stammzellen aus Nabelschnurblut*, Med Klin, 98, Suppl II: 7-10
15. Bohnenkamp H, Noll T (2003) *Process Development for standardized generation of mature monocyte-derived dendritic cells suitable for clinical application*, Cytotechnology, 42, 121-131
16. Link T, Backstrom M, Graham R, Essers R, Zörner K, Gätgens J, Burchell J, Taylor-Papadimitriou J, Hansson G, Noll T (2004), *Bioprocess development for a recombinant Mucin-1 fusion protein expressed by CHO cells in protein-free medium*, J Biotechnol, 110, 51-62
17. Bohnenkamp, H; Coleman, J; Burchell, J; Taylor-Papadimitriou, J; Noll, T (2004) *Breast carcinoma cell lysate-pulsed dendritic cells cross-prime MUC1 specific cytotoxic T-cells identified by peptide-MHC-class-I tetramers*, Cellular Immunology, 231:112

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19. Link T, Essers R, Zörner K, de Graaf A, Bäckström M, Hansson G, Noll T (2005) *Development of metabolically optimized fermentation process based on glucose-limited CHO perfusion culture*, Godia (ed.) 'Animal Cell Technology meets Genomics', Kluwer Academic Publishers, Dordrecht, 423-30
20. Fischbach, Noll T (2005) *Membrane-separated cocultivation of cord blood hematopoietic stem cells with stromal cell lines*, Godia (ed.) 'Animal Cell Technology meets Genomics', Kluwer Academic Publishers, Dordrecht, 269-71
21. Bohnenkamp HR, Noll T (2005) *Process development for standardized generation of monocyte-derived dendritic cells: Applicability in breast cancer immunotherapy*, Godia (ed.) 'Animal Cell Technology meets Genomics', Kluwer Academic Publishers, Dordrecht, 221-27
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28. Batista FRX, Ângela M. Moraes AM, Büntemeyer H, Noll T (2008) *Influence of Culture Conditions on Recombinant Drosophila melanogaster S2 Cells Producing the G Glycoprotein from the Surface of Rabies Virus Cultivated in Serum-Free Medium*, Biologics, 2009, 37:108
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42. Schröder E, Scholz S, Niklas J, Rath A, Barradas OP, Jandt U, Sandig V, Rose T, Pörtner R, Reichl U, Zeng AP, Heinzle E, Noll T (2011), *Characterisation of cultivation of the human cell line AGE1.HN.AAT*, BMC Proc. 2011 Nov 22;5 Suppl 8:P87
43. Schröder E, Scholz S, Sandig V, Hoffrogge R, Noll T (2011), *Analysis of the mitochondrial subproteome of the human cell line AGE1.HN - a contribution to a systems biology approach*, BMC Proc. 2011 Nov 22;5 Suppl 8:P86
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45. Platas Barradas O, Jandt U, Da Minh Phan L, Villanueva M, Rath A, Reichl U, Schröder E, Scholz S, Noll T, Sandig V, Pörtner R, Zeng AP (2011), *Criteria for bioreactor comparison and operation standardisation during process development for mammalian cell culture*, BMC Proc. 2011 Nov 22;5 Suppl 8:P47
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69. Klausning S, Krämer O, Noll T (2013) *Enhancing cell growth and antibody production in CHO cells by siRNA knockdown of novel target genes*, *BMC Proceedings* 2013, **7**(Suppl 6):P92
70. Aretz J, Thüte T, Scholz S, Kersting K, Noll T, Büntemeyer H (2013) *Understanding cell behavior in cultivation processes - A metabolic approach*, *BMC Proceedings* 2013, **7**(Suppl 6):P90
71. Becker J, Timmermann C, Rupp O, Albaum SP, Brinkrolf K, Goesmann A, Pühler A, Tauch A, Noll T (2013) *Transcriptome analyses of CHO cells with the next-generation microarray CHO41K: development and validation by analysing the influence of the growth stimulating substances insulin and IGF-1 substitute LongR³*, in revision
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74. Wingens Marc, Gätgens Jochem, Albaum Stefan, Büntemeyer Heino, Noll Thomas, Hoffrogge Raimund (2013), *2D-DIGE screening of high productive CHO cells under glucose-limitation – basic changes in the proteome equipment and hints for epigenetic effects*, submitted

Patents

1. Method for carrying out a measurement of the interaction of chemicals with the cells (2001), EP Patent 1,078,039
2. Method for Culturing Cells in order to produce Substances (2004), WO Patent 2,004,048,556
3. Verfahren zur Kulivierung von Zellen zur Produktion von Substanzen (2004), DE Patent 10,255,508
4. Electrofusion of cells, useful eg in cancer therapy or monoclonal antibody production, comprises exposing cells, flowing one at a time to a plane, to an aligning field and then a fusion pulse (2005), DE Patent 10,359,190
5. Electrofusion of heterologous cells, useful eg for preparing hybridomas and in assisted reproduction, comprises immobilizing different cells close to each other on a carrier then applying an electrical fusion pulse (2005), DE Patent 10,359,189
6. Sampling method and device (2006), EP Patent 1,719,997
7. Verfahren zur Probeentnahme sowie Probeentnahmevorrichtung (2006), DE Patent 102,005,020,985
8. Verfahren zur Herstellung rekombinanter Proteine bei konstantem Gehalt von pCO₂ im Medium (2009), DE Patent 102,008,013,899
9. Method for producing recombinant proteins with a constant content of pCO₂ in the medium (2009), WO Patent 2,009,112,250
10. Method for culturing of cells in order to produce substances (2010), EP Patent 1,585,810
11. Method for cultivating cells for the production of compounds (2011), EP Patent 2,275,530
12. Method for producing recombinant proteins with a constant content of pCO₂ in the medium (2013), EP Patent 2,283,120
13. Method for producing recombinant proteins with a constant content of pCO₂ in the medium (2013), US Patent 8,460,895
14. Method for recombinant protein production (2013), EP Patent Application 13 177 678.3

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