



Gesellschaft für Virologie e.V.



Deutsche Gesellschaft für Gentherapie e.V.



GEORG SPEYER HAUS
CHEMOTHERAPEUTISCHES FORSCHUNGSINSTITUT

**11. Jahrestagung der Deutschen Gesellschaft für Gentherapie
und
2. Workshop "Virale Vektoren" der Gesellschaft für Virologie (GFV)
30. Juni – 3. Juli 2004
Frankfurt**

**2. Workshop "Virale Vektoren"
- Programm -**

Mittwoch 30.6.2004

Registrierung täglich von 8:00 – 19.00 Uhr

11:00 Begrüßung

Regine Heilbronn, Sprecherin des Arbeitskreises
Dorothee von Laer, Workshop-Koordination

11:15-13:00 Adenovirus

Vorsitz: Stefan Kochanek, Ulm

Sprecher:

Urs F. Greber, Zürich (30')
Adenovirus Entry

Christoph Volpers, Köln (15')
Production and Characterization of Tropism-Modified High-Capacity Adenoviral Vectors

B. Schulte, Hannover (15')
Protein transduction domains fused to the CAR ectodomain improve adenoviral infection in nonpermissive cell types

Florian Kreppel, Ulm (15')
A novel platform for chemical modification of adenovirus vector capsids based on reactive cysteines

Kerstin Koehler-Hansner, Essen (15')
Regulation of the promoter of the latent genes of KSHV/HHV-8 by adenoviral E1A proteins

13:00-14:00 Mittagessen

14:00-16:00**AAV**

Vorsitz: Regine Heilbronn, Berlin**Sprecher:****Regine Heilbronn, Berlin (20´)***Interaction mechanisms of HSV and AAV for optimization of HSV-based packaging for AAV vectors***K. Lux / H. Büning, München (15´)***Incorporation of the Green Fluorescent Protein into the Adeno-Associated Virus Type 2 Capsid***Hildegard Büning, München (20´)***Receptor Targeting of Adeno Associated Virus***Karim Zaoui, Freiburg (15´)***Sensitive Molecular Detection of rAAV2 Episomal Concatemer Forms and Genomic Integration Sites after Long-Term Expression in vitro and in vivo***Dirk Grimm, Stanford (15´)***Double, double, toil ... and trouble : Developing novel double-stranded AAV vectors for therapeutic shRNA delivery***Toni Cathomen, Berlin (20´)***Stimulating AAV-mediated gene correction with artificial endonucleases***16:00-16:30****Kaffeepause****16:30-17:30****Neue Vektoren**

Vorsitz: Ulrike Protzer, Köln**Sprecher:****Ulrike Protzer, Köln (30´)***Hepatitis B Virus-based Vectors As Gene Therapy Vectors and Molecular Tools***Daniela Hoeller, Aachen (15´)***Gene transfer by a novel replication-defective and dominant-negative recombinant HSV-1 viral vector CJ-9***Helga Hofmann, Regensburg (15´)***Recombinant Equine Herpesvirus (EHV) Type 1 induces a systemic and mucosal HIV-specific immune response after intranasal delivery*

17:45-19:30 Retroviren 1**Vorsitz: Christopher Baum, Hannover****Sprecher:****Wolfgang Pfützner, München (15´)***Stable transgene expression in keratinocytes (KC) by transient production of retroviral vectors (RV) in the skin and subsequent topical selection of transduced cells***Matthias Schweizer, Langen (15´)***Development of lentiviral vectors for transduction of quiescent cells***Beate Liehl, Wien (15´)***SIV-based Lentiviral Vectors for Gene Therapy of Neurodegenerative Diseases***Axel Schambach, Hannover (15´)***Vector design for HIV gene therapy: Targeting hematopoietic stem cells***Diana Hammer, Hannover (15´)***Inducible Transdominant Negative HIV-1 Gag Mutants Inhibit HIV-1***Jens Bohne, Hannover (15´)***Comparison of retro- and lentiviral vectors designed for transfer of the Methylguanine-Methyltransferase gene utilized for genetic chemoprotection and selection of hematopoietic stem cells***Uta Merle, Heidelberg (15´)***Gene therapy of Wilson disease with lentiviral vectors in a rat model***Tsanan Giroglou, Frankfurt (15´)***Retroviral vectors pseudotyped with SARS coronavirus glycoprotein***Ab 20:00 Posterpräsentation****Donnerstag, 1.7.2004**

Registrierung täglich von 8:00 – 19.00 Uhr

8:00-10:30 Retroviren 2**Vorsitz: Axel Rethwilm, Würzburg****Sprecher:****Axel Rethwilm, Würzburg (30´)***Foamy virus vectors***Ralf Wagner, Regensburg (30´)***Understanding Late Lentiviral Gene Expression: Impact on the Development of HIV Candidate-Vaccines, Lentiviral Vectors and HIV-Drug Screening Systems*

Christopher Baum, Hannover (30´)*Potenzial und Sicherheit retroviraler Vektoren***Katja Sliva, Frankfurt (15´)***Replication competent retroviral vectors carrying siRNA as tool to investigate tumor development and as potential tumor therapy***Seraphin Kuate, Bochum (15´)***Production of lentiviral vectors by transient expression of minimal packaging genes from recombinant adenoviruses***Thomas Grunwald, Bochum (15)***Reducing mobilization of simian immunodeficiency virus based vectors by primer complementation***10:30 – 11:00** **Kaffeepause****11:00 - 13:00** **Onkolytische Viren****Vorsitz: Dirk Nettelbeck, Erlangen****Sprecher:****Dirk Nettelbeck, Erlangen (10´)***Einleitung***Oliver Wildner, Bochum (25´)***Replikationsfähige adenovirale Vektoren: Ein entwicklungsgeschichtlicher Rückschritt als Fortschritt in der Tumor Genterapie***Florian Kuehnel, Hannover (25´)***Kritische Ziele der onkolytischen Virotherapie: Tumorselektive Replikationskontrolle und Retargeting***Henry Fechner, Berlin (25´)***Pharmakologisch regulierbare onkolytische Adenovektoren für die Tumorgenterapie***Per Sonne Holm, München (25´)***Ist der humane zelluläre Faktor YB-1 ein zentraler Bestandteil der adenoviralen Replikation?***Thomas Wirth, Hannover (10´)***Selective adenoviral replication restores sensitivity to chemotherapy and TRAIL-mediated apoptotic stimuli in resistant tumor types***13:00-14:00** **Mittagspause**



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**11. Jahrestagung der DG-GT
- Tagungsprogramm -**

Donnerstag, 1.7.2004

14:00 Begrüßung **M. Grez, Tagungspräsident**
 M. Hallek, Präsident DG-GT
 B. Groner, Direktor, Georg-Speyer-Haus

14:15 - 16:15 **S1: Genregulation, Chromatindomänen und transkriptionelles Targeting**

Vorsitz: Christopher Baum, Hannover

Sprecher:

Hermann Bujard, Heidelberg (30´)

Controlling genes in eukaryotes via tetracyclines: principles and advances

Jürgen Bode, Braunschweig (30´)

Chromatin-Minidomänen: Eigenschaften, Konstruktion und Anwendungen

Stefan Stein, Frankfurt (15´)

Targeting transgene expression to myeloid cells

Melanie Werner, München (15´)

Targeting transgene expression to the B-cell lineage originating from retroviral-transduced murine hematopoietic stem cells

Miriam Svorcova, Köln (15´)

Regulated and Liver Specific Expression of Type I and II Interferons Blocks Hepatitis B Virus Replication

Rainer Löw, Idar-Oberstein (15´)

Development of tet-regulated bi-directional retroviral vectors that permit highly induced and well regulated gene expression

16:15 – 16:45 **Kaffeepause**

16:45 – 18:30 S2: Stammzellen**Vorsitz: Albrecht Müller, Würzburg****Sprecher:****Albrecht Müller, Würzburg (20´)***HoxB4 vermittelte Kontrolle der Differenzierung und Proliferation von HSCs***Thomas Braun, Halle (20´)***Reconfiguration of aged and diseased muscle by cell based approaches***Martin Zenke, Aachen (20´)***Stammzell commitment und Differenzierung***Kai Christoph Wollert, Hannover (20´)***Stammzelltherapie nach Herzinfarkt***Alexander Pfeifer, München (20´)***Efficient Production of Transgenic Animals by Lentiviral Gene Transfer***Ab 18:30 Posterpräsentation****Grillparty****Freitag, 2.7.2004****Registrierung täglich von 8:00 – 19.00 Uhr****8:30 – 10:30 S3: Epigenetische Regulation bei Tumoren****Vorsitz: Ulrich Hengge, Düsseldorf****Sprecher:****Reinhard Dammann, Halle (25´)***Inaktivierung des Tumorsuppressorgens RASSF1A durch Hypermethylierung in Tumoren***Frank Lyko, Heidelberg (25´)***Epigenetische Reaktivierung von Tumorsuppressorgenen durch einen neuartigen Inhibitor menschlicher DNA-Methyltransferasen***Wolfgang Schulz, Düsseldorf (25´)***Ursachen und Auswirkungen der Inaktivierung von CDKN2A in Karzinomen***Andrea Tannapfel, Leipzig (25´)***Epigenetik von (gastrointestinalen) Tumoren***10:30 – 11:00 Kaffeepause**

11:00 – 13:15 S4: Molecular Imaging in Cancer, Tumor Targeting

Vorsitz: Michael Hallek, Köln

Sprecher:

Andreas Jacobs, Köln (20´)

Molecular Imaging of Gliomas

L. Perabo / M. Hallek, München / Köln (15´)

Retargeting AAV-2 to Angiogenic Endothelial Cells with tumor vasculature specific capsid variants

Ulrich Bogdahn, Regensburg (15´)

TGF-beta2 Suppression by the Antisense Oligonucleotide AP 12009 as Therapy for High-Grade Glioma: Safety and Efficacy Results of Phase I/II Clinical Studies

Christian Buchholz, Langen (15´)

Tumor Targeting und Therapie mit replikationskompetenten Retroviren

Thomas Heinicke, Bonn (15´)

Adenoviraler P53 Gentransfer verbessert das Ansprechen von HT-29 Kolonkarzinomzellen auf Standardchemotherapie

Michaela Scherr, Hannover (15´)

Dose-dependent gene silencing by lentivirus-mediated RNA interference (RNAi) in bcr-abl positive cells

Marlon R Veldwijk, Heidelberg (15´)

Recombinant Adeno-associated Virus 2 Suicide Vectors for the Treatment of Human Sarcomas and Mesotheliomas

Christian Planck, München (15´)

Advances in Magnetofection- magnetically guided nucleic acid delivery

13:15-14:15

Mittagspause

DG-GT Mitgliederversammlung

14:15 – 16:15 S5: Immuntherapie

Vorsitz: Winfried Wels, Frankfurt

Sprecher:

Matthias Theobald, Mainz (20´)

Molekulare Perspektiven einer T-Zellrezeptor Gentherapie maligner Erkrankungen

Wolfgang Uckert, Berlin (20´)

Konstruktion tumorreaktiver T-Zellen für die Immuntherapie

Max Topp, Tübingen (20´)

Expression von multiple Myelom spezifischen chimärigen Immunorezeptoren in T-Zellen

Hinrich Abken, Köln (20´)

Antikörper basierte Immunrezeptoren: der Einfluss der Signaldomäne, der Bindungsaffinität und der Kostimulation

Winfried Wels, Frankfurt (20´)

Retargeting of NK-cell cytolytic activity to human tumor cells by expression of chimeric antigen receptors

Ulrike Koehl, Frankfurt (15´)

Clinical Scale Transduced T-Cells Equipped With Two Different Suicide Genes For Immunotherapy Following Allogeneic Stem Cell Transplantation

16:15 – 16:45**Kaffeepause****16:45 – 18:30****S6: Regulatorische Aspekte, GMP-Produktion****Vorsitz: Klaus Kühlicke, Idar-Oberstein****Sprecher:****Klaus Cichutek, Langen (20´)**

Regulatory aspects of gene therapy

Norbert Dinauer, Fresenius (20´)

Pharmacology and toxicology testing for gene therapy with retroviral vectors

Klaus Kühlicke, Idar-Oberstein (20´)

Production of retrovirally transduced stem- and T cells for clinical use

Martin Schleef, Plasmid Factory (20´)

Animal-free GMP manufacturing of plasmid DNA for virus production or direct DNA drug delivery - vector storage and stability

Peter Leyendecker, Idar- Oberstein (20´)

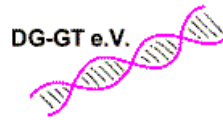
Upscaling of retroviral vector production and establishment of a method for vector concentration

Ab 18:30**Posterpräsentation**

Samstag, 3.7.2004**8:30 – 10:30 S7: Gentransfer in HSC und T-Zellen Teil I****Vorsitz: Dorothee M. von Laer, Frankfurt****Sprecher:****Markus G. Manz, Bellinzona (30´)***Immunoreconstitution - of mice and men***Peter Horn, Hannover (20´)***Gentransfer in hämatopoetische Stammzellen: Fortschritte im Großtiermodell***Helmut Hanenberg, Düsseldorf (20´)***Fanconi-Anaemie als Modellerkrankung für den Einsatz retroviraler Vektoren***Boris Fehse, Hamburg (20´)***Suizidgen-modifizierte T-Lymphozyten in der Blutstammzelltransplantation - Ergebnisse einer klinischen Studie in Hamburg***Dorothee von Laer, Frankfurt (15´)***Gentherapie der HIV-Infektion***Manuel Grez, Frankfurt (15´)***Gentherapie für die Chronische Granulomatose***10:30 – 11:00****Kaffeepause****11:00 – 13:00 S8: Gentransfer in HSC und T-Zellen Teil II****Vorsitz: Christof von Kalle, Freiburg****Sprecher:****Thomas Moritz, Essen (20´)***Selection of genetically modified cells by MGMT^{P140K} gene expression in a murine in vivo gene transfer model***Christof von Kalle, Freiburg (20´)***The clonal activity of gene modified hematopoietic stem cells***Stefan Frühauf, Heidelberg (20´)***Systematic analysis of retroviral vector integrations in human cells***Marlene B. Fischer, Freiburg (15´)***Human short term hematopoietic repopulating cells show similar substantial early activity in autografted patients and immunodeficient NOD/SCID- β 2microglobulin null mice***Zhixiong Li, Hannover (15´)***Pretransplant selection of retrovirally modified bone marrow cells impairs engraftment and enhances interindividual variability of transgene expression in mice*



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Posterpräsentationen

- P1**
Kühnel F., L. Zender, T. Wirth, Schulte B., M. P. Manns, S. Kubicka
p53 selective adenoviral vector for transgene expression and replication for virotherapy of p53 altered cancers
- P2**
N. Woller, B. Schulte, T. Wirth, M. P. Manns, S. Kubicka, F. Kühnel
Telomerase dependent conditionally replicating adenovirus (hTERT-Ad) expressing CAREx-PTDs displays enhanced oncolytic properties in nonpermissive tumor cells
- P3**
Bieler, A., Bernshausen, A., Grosu, A., Staerk, S., Juerchott, K., Gaensbacher, B., Holm, P. S.
Effect of adenovirus dl520 as replicating agent in combination with fractionated radiotherapy in a glioma xenograft model
- P4**
Nettelbeck D.M., N.S. Banerjee, A.A. Rivera, A.L. Volk, J. Davydova, M. Yamamoto, V. Krasnykh, T.R. Broker, L.T. Chow, and D.T. Curriel
Tropism-Modification and Targeted Replication of Adenoviruses for Virotherapy of Malignant Melanoma: Analysis in an Organotypic Model
- P5**
Bernshausen A., G. Glockzin, K. Mantwill, H. Royer, B. Gänsbacher, P.S. Holm
The multidrug resistant phenotype in tumor cells facilitates adenoviral replication: New concepts for oncolytic vector development
- P6**
Mantwill, K., Gänsbacher, B., Holm, P. S.
Characterization of the adenoviral E2-Late Promoter in cells with different locations of the transcription factor YB-1
- P7**
Schulz T., S. Thaler, A. Burger, R. Dummer, B. Schnierle
MLV/HIV pseudotyped vectors: a new treatment option for cutaneous T cell lymphomas
- P8**
Schulz T., B. Schnierle
Chimeric T-cell receptors directed against the envelope protein of human immunodeficiency virus (HIV) to target cytotoxic effector cells to HIV infected cells.

- P9**
Hombach A., C. Heuser, H. Abken
T cell based immunotherapy: recombinant immunoreceptors endow T cells with predefined specificity.
- P10**
Bohne F., A. Hombach; T. Kürschner; H. Abken; U. Protzer
Redirection of T cells against Hepatitis B Virus (HBV) infected cells using single chain antibody fragments
- P11**
Hermann F., M.D. von Laer
Resistance mechanisms of HIV to membrane-bound entry inhibitors
- P12**
Bouazzaoui A., M. Kreutz, J. Strayle, S. Hallenberger, R. Andreesen, H. von Briesen
Identification of cellular genes influencing HIV-1 replication in monocytes/macrophages
- P13**
Fischer Y., H. Miletic, H. Neumann, V. Hans, T. Giroglou, M. Deckert, D.M. von Laer
Specific and efficient transduction of glioma by lentiviral vectors pseudotyped with LCMV glycoproteins
- P14**
Bäumler J., M. Goebel, M. Grez
The BCR-ABL translocation breakpoint as target for RNA-ligands
- P15**
Becker S., J.C. Simpson, R. Pepperkok, S. Heinz, C. Herder, M. Grez, E. Seifried, T. Tonn
Confocal microscopy analysis of native, full length and B-domain deleted coagulation factor VIII trafficking in mammalian cells
- P 16**
Chen L., S. Stein, M. Grez
Selective expansion of gp91phox transduced murine hematopoietic stem cells in vitro
- P17**
Deichmann A., M. Schmidt, S. Hacein-Bey Abina, K. Schwarzwaelder, J. Hu, C. Prinz, M. Wissler, S. Schmidt, H. Glimm, M. Cavazzana-Calvo, A. Fischer, C. von Kalle
Distribution of retroviral integration sites in one patient of a SCID-X1 gene-therapy study
- P18**
Giordano F.A., S. Laufs, K.Z. Nagy, K. Kuehlcke, B. Fehse, S. Naundorf, A.R. Zander, W.J. Zeller S. Fruehauf
Detecting retroviral integration sites in donor T-lymphocytes for suicide gene therapy
- P19**
Hollatz G., U. Köhl, T. Klingebiel, M. Grez
A combination of two independent suicide pathways leads to a fast and efficient elimination of gene transduced T-cells
- P20**
Jiongqiong Hu, M. Schmidt, S. Hacein-Bey-Abina, A. Fischer, M. Wissler, C. Prinz, H. Glimm, F. Le Deist, N. Wulffraat, I. Andre-Schmutz, M. Cavazzana-Calvo, C. von Kalle
High-sensitivity LAM-PCR Analysis to Characterize Retroviral Clonal Inventory in French SCID-X1 Gene Therapy Clinical Trial

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Rattmann I., K.Lehmberg, W.Bardenheuer, A.Feldmann, C.Ludwig, U.R.Sorg, T.Moritz, M.Flasshove

Cytidine deaminase protects human progenitor cells from cytarabine and gemcitabine and allows in vitro selection of transduced cells

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Fanaei S., A. Stefanski, S. Chandra. D.A Williams, M. Flasshove, B. Opalka, J. Thomale, T. Moritz
DNA-repair and adduct levels in hematopoietic cells protected from alkylating drugs by MGMT overexpression

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Ebeling P., U.R.Sorg, P.Bach, T.Trarbach, H.Hanenberg, T.Moritz, M.Flasshove
Engraftment of genetically modified human cord blood cells in NOD/SCID mice

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Nagy K.Z., S. Laufs, WJ Zeller, S Fruehauf

Investigations on the multiclonality of human hematopoiesis using retroviral gene marking to quantify the contribution of individual marrow-repopulating cells to engraftment

P25

Newrzela S., M.D. von Laer

Expression of a neutralizing antibody against HIV-1 in lymphocytes using a retroviral vector

P26

Roos W.P., M. Baumgartner, B. Kaina

O⁶-methylguanine-triggered apoptosis in primary human lymphocytes: involvement of DNA replication, DNA double-strand breaks, p53 and death receptor signaling

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Schwarzwaelder K., M. Schmidt, S. Howe, C. Prinz, M. Wissler, S. Schmidt, H. Glimm, B. Gaspar, A. Trasher, C. von Kalle

Polyclonal hematopoietic repopulation derived from pluripotent and long term active CD34+ cells after successful SCID-X1 gene therapy

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Zeidler M., J. Cornelis, T. Woelfel, J. Rommeleare, P. R. Galle, M. Heike, M. Moehler

Parvovirus H1-induced tumor cell death enhances human immune response via crosspresentation of dendritic cells