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**Date and Place of Birth:** April 16, 1960, Frankfurt am Main, Germany  
**Citizenship:** German  
**Former U.S. Visa Status:** O-1 Nonimmigrant Visa  
**Marital Status:** Married, 2 children  
**Social Security Number:** 022-78-6668

**Education:**

1986 M.D., Johann Wolfgang Goethe University Medical School,  
Frankfurt/Main, Germany

**Postdoctoral Training:**

## Internships and Residencies:

1985 -1986 Intern in Medicine, Surgery and Pediatrics at  
Offenbach City Hospital, Offenbach/Main, Germany  
1986 -1988 Resident in Pathology, Senckenberg Institute for Pathology,  
J.W.Goethe University Hospital, Frankfurt/Main, Germany  
1988 -1995 Resident in Pediatrics, Department of Pediatrics,  
J.W. Goethe University Hospital, Frankfurt/Main, Germany

## Clinical and Research Fellowships:

1994-1995 Research Fellow in Pediatrics,  
Harvard Medical School, Boston, MA  
1994-1995 Research Fellow in Infectious Diseases,  
Children's Hospital, Boston, MA  
1995-1998 Clinical Fellow in Pediatric Hematology-Oncology,

- 1998-2001 Pediatric Oncology Branch, National Cancer Institute,  
National Institutes of Health, Bethesda, MD  
Senior Clinical Fellow in Pediatric Hematology-Oncology, Pediatric  
Oncology Branch, National Cancer Institute,  
National Institutes of Health, Bethesda, MD
- 1996-2001 Clinical and Research Fellow in Infectious Diseases,  
Immunocompromised Host Section, National Cancer Institute, National  
Institutes of Health, Bethesda, MD

Doctoral Thesis (M.D. Thesis):

- 1987 "Basics and Clinical Application of the Teichoic Acid Antibody  
Assay in *Staphylococcus aureus* Infections"  
Infectious Disease Laboratory, Dept. of Internal Medicine,  
J.W. Goethe University Hospital, Frankfurt/Main, Germany

Habilitation Thesis (Ph.D. Thesis):

- 2001 "Preclinical Investigation of the Pharmacokinetics and Pharmaco-dynamics of a  
Multilamellar Liposomal Formulation of Nystatin"  
J.W. Goethe University Medical School, Frankfurt/Main, Germany

**Licensures and Certifications:**

- 1986 State medical examination ('Staatsexamen'; Hessisches  
Landesprüfungsamt für Heilberufe; 18.11.1986) and full registration as  
physician ('Approbation'; Hessisches Landesprüfungsamt für Heilberufe;  
20.11.1986)
- 1994 ECFMG certification  
(United States of America)
- 1995 Board certification in Pediatrics  
(Germany and European Community)
- 1996 Permanent ECFMG certification  
(United States of America)
- 1998 Board eligibility, Pediatric Hematology/Oncology  
(United States of America)
- 2009 Board certification, Pediatric Hematology/Oncology  
(Germany; 'Schwerpunkt Kinder-Hämatologie und -Onkologie';  
Ärztchamber Westfalen-Lippe; 24.01.2009)
- 2010 Board certification, Infectious Diseases  
(Germany; 'Zusatzweiterbildung Infektiologie';  
Ärztchamber Westfalen-Lippe; 15.01.2010)

**Language Skills:** English (fluent), German (fluent), French (advanced)

**Academic Appointments:**

- 1987 -1988 Instructor in Pathology, J.W. Goethe University, Frankfurt/Main

1988 -1994	Instructor in Pediatrics, J.W. Goethe University, Frankfurt/Main
1994	Instructor in Microbiology, Harvard Medical School, Boston, MA
2001- 2005	Assistant Professor in Pediatrics, J.W. Goethe University, Frankfurt/Main, Germany
2005-	Assistant Professor in Pediatrics, Wilhelms-University, Muenster, Germany
2008-	Associate Professor in Pediatrics, Wilhelms-University, Muenster, Germany

**Principal Clinical and Hospital Service Responsibilities:**

J.W. Goethe University Hospital, Frankfurt/Main, Germany:

1986 -1988	Resident, Anatomical and Surgical Pathology
1988	Resident, Neonatology
1989	Resident, Neonatal Intensive Care Unit
1989 -1991	Resident, Pediatric Hematology/Oncology
1991	Resident, Pediatric Intensive Care Unit
1992	Resident, Pediatric Infectious Disease
1992 -1993	Resident, General Pediatrics
1993 -1994	Senior Resident, Neonatal Intensive Care Unit
1995	Attending and Head, Immunodeficiency Outpatient Clinic
1988 –1994	Resident-on-call, Neonatal and Pediatric Intensive Care Units
1995	Attending-on-call, General Pediatrics

Warren Grant Magnuson Clinical Center, NIH, Bethesda, MD, USA:

1995-2001	Clinical Fellow in Pediatric Hematology-Oncology, NCI
1998-2001	Physician-on-call, Pediatric Oncology Branch, NCI
1998-2001	Junior Attending, Pediatric Oncology Branch, NCI

University Hospital, Muenster, Germany:

2001-	Attending Physician, Center for Bone Marrow Transplantation and Department of Pediatric Hematology/Oncology
2002-	Head, Infectious Disease Research Program, Center for Bone Marrow Transplantation and Department of Pediatric Hematology/Oncology
2008-	Clinical Director, Outpatient and Day Clinic, Department of Pediatric Hematology/Oncology
2010-	Associate Director, Department of Pediatric Hematology/Oncology

**Work as Consultant to the Pharmaceutical Industry:**

1999	Versicor, USA
1999	Abbott, USA
2000	MedImmune, USA
2000-2002	Merck, USA
2002 -	Gilead Sciences, Germany
2001-	Merck Sharp & Dohme, Germany
2003	Schering-Plough, USA
2004	Fujisawa, Germany

2005 Mc Kinsey, USA  
2005 - Essex Pharma / Schering Plough, Germany  
2006 - Astellas Europe

### **Honors and Awards:**

1993 Walter Marget Infectious Disease Scholarship Award  
1998 Division of Clinical Sciences/NCI Senior Fellowship Award  
1998 American Society of Infectious Disease Pharmacists Research Award  
1999 U.S. O-1 Nonimmigrant Visa for Extraordinary Ability in the Sciences  
2000 Mycology Award of the Intern. Immunocompromised Host Society  
2002 Merck Sharp & Dohme Scholarship Mycology  
2006 German Society for Pediatric Infectious Diseases Poster Award  
2008 Research Award, German-speaking Mycological Society (DMYKG)  
2009 Poster Award, German-speaking Mycological Society (DMYKG)  
2010 Travel Grant, International Immunocompromised Host Society (ICHS)

### **Professional Societies:**

1986- German Medical Association  
1993 - German Society for Infectious Diseases  
1993 - German Society for Pediatric Infectious Diseases  
1993- Walter-Marget-Society for Infectious Diseases  
1994 - European Society for Pediatric Infectious Diseases  
1999 - American Society for Microbiology  
1999 - Infectious Disease Society of America  
1999 - NIAID Mycoses Study Group  
2001 - Paul Ehrlich Society for Chemotherapy  
2001 - International Society for Infectious Diseases  
2001 - International Immunocompromised Host Society (ICHS)  
2001 - EORTC Invasive Fungal Infections Group  
2001 - Internat. Society for Human and Animal Mycology (ISHAM)  
2001 - German Society for Mycology (DGMYS)  
2004 - Society for Pediatric Oncology and Hematology (GPOH)  
2010- European Soc. for Clin. Microbiology and Infectious Diseases (ESCMID)

### **Offices in Professional Societies:**

2001- Chairman and C-Chairman, Antifungal Chemotherapy Section, Paul Ehrlich Society for Chemotherapy  
2010- Board member, Paul-Ehrlich Society for Chemotherapy  
2010- Coordinator, Pediatric Group, ECIL Study Group

### **Major Research Interests:**

Infectious complications in the immunocompromised host  
Invasive fungal infections  
Pharmacology of antimicrobial agents  
Design and conduct of clinical research studies

Pediatric infectious diseases  
Pediatric hematology/oncology and hematopoietic stem cell transplantation

**Self Report of Teaching:**

Johann Wolfgang Goethe University, Frankfurt/Main, Germany:

1986 -1988	General Pathology Assistant lecturer 200 medical students (lectures) 128 hours/year
1986 -1988	General Pathology Instructor in General Pathology 8 medical students 64 hours/year
1986 -1988	Histopathology Instructor 12 medical students 64 hours/year
1988 -1991	Physical Examination in Pediatrics Instructor, bedside teaching 8 medical students 128 hours/year
1992 -1994	General Pediatrics Instructor 10 medical students 48 hours/year bedside teaching

Harvard Medical School:

1994	Identity, Microbes and Defense (New Pathway) Substitute Tutor and “Quadruple Jump” Examiner 8 medical students 20 hours/year
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Wilhelms-University, Muenster, Germany

2001-	General Pediatrics Instructor and Lecurer 4-6 medical students 24 hours/year bedside teaching and course work
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Other Teaching Responsibilities

1988 -1995	Doctoral Thesis Mentor 1 medical student/year
1997 –2001	NIH Student Research Training and Volunteer Program 2 medical students, 1997; 1 medical student, 1998 -2001

1998 -1999 Pediatric AIDS-Foundation  
1 medical student, 1998 and 1999  
2003- Doctoral Thesis Mentor  
up to 4 medical student/year

### **Editorial Reviews:**

European Respiratory Journal (1995)  
International Journal of Infectious Diseases (1996,2009, 2011)  
Antimicrobial Agents and Chemotherapy (1998; 2000-2011)  
Clinical Infectious Disease (1998, 1999, 2000, 2001,2002, 2003,2005,2006,2009,2010)  
Archives of Disease in Childhood (1999; 2001; 2002;2004)  
Pediatric Infectious Disease Journal (1999; 2001; 2005;2007;2008,2009)  
Clinical Microbiology and Infection (2000-2011)  
Expert Opinion in Pharmacotherapy (2000;2008;2009)  
Expert Opinion on Therapeutic Patents (2001)  
Journal of AOAC International (2000)  
European Journal of Hematology (2001; 2002;2003-2010)  
European Journal of Pediatrics (2002; 2009)  
European Journal of Clinical Microbiology and Infectious Diseases (2007;2009)  
Journal of Pharmacy and Pharmacology (2001;2005)  
The Medical Letter (2001)  
Journal of Infectious Diseases (2001; 2002;2003-2010)  
British Journal of Hematology (2001; 2003; 2010)  
Infection and Immunity (2001)  
Medical Mycology (2002;2003;2004;2005;2006;2007;2008;2009;2010;2011)  
The Lancet (2002)  
Journal of Antimicrobial Chemotherapy (2003-2010)  
Drugs (2003;2006)  
Cancer (2004;2006)  
Annals of Hematology (2004)  
Journal of Clinical Microbiology (2004)  
Pediatric Blood and Cancer (2005;2006;2007;2008;2009;2010)  
Mycoses (2004; 2005-2010)  
J Clin Pharmacol (2005)  
Chemotherapy (2006)  
Hematologica (2006)  
Supportive Cancer Care (2006;2009;2011)  
International Journal of Medical Microbiology (2006)  
Journal of Pediatric Hematology/Oncology (2007;2008;2009;2010)  
Nature Biotechnology Reviews (2007)  
Proteomics (2007)  
Mayo Clinic Proceedings (2008;2009)  
Expert Review of Hematology (2009)  
Journal of Medical Microbiology (2009)  
Infection (2008;2009)  
Pediatric Drugs (2008)  
Bone Marrow Transplantation (2009,2011)  
Expert Reviews of Antiinfective Therapies (2010)  
Pediatrics (2010)

Immunological Investigations (2011)  
Oncologist (2010)  
Critical Care (2011)  
Expert Opinion on Drug Safety (2011)

### **Editorial Boards:**

Antimicrobial Agents and Chemotherapy (2002 - present)  
Clinical Microbiology and Infection (2002; 2003)  
Mycoses (2004 - present)  
Journal of Infectious Disease (2006 - present)  
Current Fungal Infection Reports (Editor-in-Chief; 2006- present)  
Current Infectious Disease Reports (2007- present)

### **Abstract Review Committees:**

Meeting of the International Society for Human and Animal Mycology (ISHAM),  
San Antonio, TX (2003)  
14<sup>th</sup> Meeting of the European Congress of Clinical Microbiology and Infectious  
Diseases (ECCMID), Prague (2004)  
2<sup>nd</sup> Trends in Medical Mycology, Berlin 23-26 October 2005  
3<sup>rd</sup> trends in Medical Mycology, Athens, October 2009  
Kongress fuer Infektiologie und Tropenmedizin (KIT) Cologne Mai 2010

### **Scientific Advisory Committees:**

2<sup>nd</sup> Trends in Medical Mycology (TIMM), Berlin, October 2005  
Annual Meeting of the German-speaking Mycological Society; Cologne, Sept. 2009  
3<sup>rd</sup> Trends in Medical Mycology (TIMM), Athens, October 2009  
Meeting of the International Society for Human and Animal Mycology (ISHAM), 2010

### **Grant / Award Reviews:**

Children's Cancer Foundation (Bonn, Germany) (2003; 2005)  
Paul-Ehrlich-Society (Rheinbach, Germany) (2005; 2006; 2008; 2010)  
Spanish Ministry of Health and Consumer's Affairs (2006)  
NHLS Research Trust / Medical Research Council South Africa (2008)  
Robert Koch Institute, Germany (2010)  
Austrian National Bank Jubilaeumsfonds, Austria (2010)  
German-Speaking Mycological Society DMYKG (2010)

### **Hospital Committees:**

2002- Transfusion Medicine Commission, University Hospital Muenster  
2003-2009 Steering Committee, Clinical Trial Coordination Center (KKS),  
University Hospital Muenster (closed in 2009)  
2006 - Infection Control Committee, University Hospital Muenster  
2010- Antibiotics Use Committee, University Hospital Muenster  
2010- Drug Prescription Committee, University Hospital Muenster

### **Clinical Research Committees:**

1999-2001	Pediatric Oncology Branch Protocol Review Committee
1999	Data Review Committee, Pfizer Protocol 150-603
2001-	AML-BFM Supportive Care Advisory Committee
2001-	GPOH/DGPI Infectious Disease Working Group
2008-	Data Review Committee, Studie IVAN (KKS Köln)
2008	ECMM Working Party om Zygomycosis
2008	ECIL Group
2010	ECIL Working Party Pediatrics
2010	ESCMID Fungal Infection Study Group Candida Guidelines
2008	Pediatric Fungal Network

### **Clinical Research Trials, Associate Investigator:**

T.J.Walsh (Principal Investigator): A study to determine a maximum tolerated dose of AmBisome (liposomal amphotericin B) in patients with proven or presumptive aspergillosis or infections due to other filamentous fungi (completed and reported) (1998)

T.J. Walsh (Principal Investigator): Phase I-II study of the safety and pharmacokinetics of a small unilamellar vesicle formulation of liposomal amphotericin B (AmBisome) in immunocompromised children (completed and reported) (1998)

T.J. Walsh (Principal Investigator): A randomized, open label, comparative, multicenter trial of voriconazole versus AmBisome for empirical antifungal therapy in immunocompromised patients with persistent fever and neutropenia (completed and reported) (1998)

T.J. Walsh (Principal Investigator): Phase I study of the safety, tolerance, and pharmacokinetics of FK463 in immunocompromised children with fever and neutropenia (completed and reported) (2000)

T.J.Walsh (Principal Investigator): A Phase III, Randomized, Double-Blind, Comparative Trial of FK463 Versus Fluconazole for Prophylaxis of Fungal Infections in Patients Undergoing a Bone Marrow or Peripheral Stem Cell Transplant (completed and reported) (2000)

T.J.Walsh (Principal Investigator): An open, intravenous multiple dose, multi-center study to investigate the pharmacokinetics, safety and toleration of Voriconazole in children aged 2 - 12 years who require treatment for the prevention of systemic fungal infection (completed and reported) (1998)

T.J.Walsh (Principal Investigator): An open label, non-comparative, multicenter, phase III trial of the efficacy, safety and toleration of extended Voriconazole in the treatment of invasive fungal infections (completed and reported) (1998)

T.J.Walsh (Principal Investigator): A Multicenter, Open, Sequential Dose-Escalation Study to Investigate the Safety, Tolerability, and Pharmacokinetics of Two Separate Doses of MK-0991 in Children with New Onset Fever and Neutropenia (completed and reported) (1999)

T.J.Walsh (Principal Investigator): Surveillance of invasive fungal infections in bone marrow/stem cell and solid organ transplant recipients: a prospective multicenter study (ongoing) (2001)

D.Dilloo (Principal Investigator): Vaccination of children following allogeneic blood stem cell transplantation (ongoing) (2003-2006)

A.Ullmann (Principal Investigator): Open-label, limited access protocol of posaconazole in invasive fungal infections (ongoing) (2005)

### **Clinical Research Trials, Principal Investigator:**

A.H.Groll (Principal Investigator). A multicentre study of fluconazole versus oral polyenes in the prevention of fungal infection in children with hematological or oncological malignancies (completed and reported) (1991)

A.H. Groll (Principal Investigator): Cyclodextrin itraconazole in the treatment of oropharyngeal candidiasis (OPC) in children with HIV-infection (completed and reported) (1997-2000)

A.H. Groll (Principal Investigator): Population pharmacokinetics of amphotericin B lipid complex in neonates (completed and reported) (1998-2001)

A.H. Groll (Principal Investigator): An open-label, intravenous to oral switch, multiple-dose, multi-centre study to investigate the pharmacokinetics, safety and tolerability of voriconazole in hospitalized children aged 2 to <12 years who require treatment for the prevention of systemic fungal infections (completed) (2003-2004)

A.H.Groll (Principal Investigator): A Phase II study investigating the pharmacokinetics, safety and tolerance of caspofungin alone and in combination with liposomal amphotericin B in adult patients with allogeneic hematopoietic stem cell transplantation (*ongoing*) (2004-2006)

A.H. Groll (Principal Investigator): A multicenter, double-blind, randomized comparative study to evaluate the safety, tolerability and efficacy of caspofungin versus amphotericin B liposome for injection as empirical therapy in pediatric patients with persistent fever and neutropenia (*ongoing*)(2004-2006)

A.H. Groll / O. Cornely (Principal Investigators): A dose escalation study of caspofungin in patients with invasive aspergillosis refractory to or intolerant of standard therapies (*under review*)(2006)

### **Relevant Courses:**

1996/1997: Clinical Pharmacokinetics and Biopharmaceutics (FAES Graduate School, 2 semesters. Course director: C.T. Vishvanathan, Pharm.D.)

1996/1997: Core Course in Clinical Research (FAES Graduate School/NIH Office for Education; 2 semesters. Course directors: J.S. Alexander and J.I. Gallin, M.D.)

1998: Board Review Course in Infectious Diseases (Center for Biomedical Communication, 5 days. Course directors: J. E. Bennet, M.D. and H. Masur, M.D.)

1998/1999: Principles of Clinical Pharmacology (Pharmacy Department, Clinical Center/NIH Office for Education, 2 semesters. Course director: A. Atkinson, M.D.)

2000: Ethical and Regulatory Aspects of Human Subjects Research (Department of Clinical Bioethics, Clinical Center/NIH Office for Education) 7 3hr sessions. Course Director: Ezekiel Emanuel, M.D., Ph.D.)

2003: Core Course in Transfusion Medicine (Chamber of Physicians, Westfalen-Lippe; two 8-hour sessions. Course Director: Prof. Sibrowski, M.D.)

2006: Core Course in Hospital Hygiene (Department of Hygiene and Infection Control, University-Hospital Muenster. Course Director: Prof. Karch, M.D.)

## BIBLIOGRAPHY

### Original Reports

1. Falk S, Enzensberger W, Fischer PA, Just G, Laubenberger C, Helm EB, Stille W, Schlote W, Groll A, Huebner K, and Stutte HJ (1988). Clinical spectrum and pathologic-anatomic findings in AIDS-patients with *Cryptococcus neoformans* meningoencephalitis (english abstract). *Nervenarzt* 59: 553-558
2. Groll AH, Shah PM (1989) Teichoic Acid antibody assay in infections of the bones and joints caused by *Staphylococcus aureus* (english abstract). *Unfallchirurg* 92: 414-418
3. Groll A, Schneider M, Althoff PK, Falkenbach H, Helm EB, Keul HG, Schleiblinger S, Huebner K (1990) Morphology and clinical significance of pathologic changes of the adrenals and hypophysis in AIDS (english abstract). *Dtsch Med Wochenschr* 115: 483-488
4. Groll A, Schneider M, Althoff PK, Falkenbach H, Helm EB, Keul HG, Schleiblinger S, Huebner K (1990) Morphology and clinical significance of pathologic changes of the adrenals and hypophysis in AIDS (english abstract; in Japanese). *Dtsch Med Wochenschr Japan* 7: 451-456
5. Groll A, Schneider M, Gaida BJ, Huebner K (1991) Infectious endocarditis from the morphological viewpoint: on the pathology and clinical aspects of 97 autopsy cases (english abstract) *Med Klin* 86: 59-70
6. Groll A, Graefin Vitzthum H, Schneider M, Huebner K (1991) Pathologic changes associated with fatal *Plasmodium falciparum* infection (english abstract) *Mitt Oesterr Ges Tropenmed Parasitol* 13: 259-278
7. Groll A, Meiser A, Weise M, Rettwitz-Volk W, v.Loewenich V, Gussetis ES, Kornhuber B (1992). Interleukin 6 as early mediator in neonatal sepsis. *Pediatr Infect Dis J* 11: 496-498
8. Groll A, Wildfeuer A, Weise M, Gussetis E, Schwabe D, Gerein V, Kornhuber B (1992) Pharmacokinetics of fluconazole in a pediatric subgroup. In: Adam D, Lode H, Rubinstein E (eds). *Recent Advances in Chemotherapy*. Futuramed Publishers, Munich : 526-527
9. Nowak-Goettl U, Groll A, Kreuz WD, Brand M, Breddin KH, v.Loewenich V, Kornhuber B (1992). Treatment of disseminated intravascular coagulation with antithrombin III concentrate in children with verified infection (english abstract) *Klin Paediatr* 204: 134-140
10. Groll A, Nowak-Goettl U, Wildfeuer A, Weise M, Schwabe D, Gerein V, Kornhuber B (1992). Fluconazole treatment of oropharyngeal candidiasis in children with severe mucositis following antineoplastic chemotherapy (english abstract) *Mycoses* 35 (suppl.): 35-40
11. Groll A, Keul HG, Schneider M, Huebner K (1992) AIDS-associated *Pneumocystis carinii*-pneumonitis: increasing incidence of atypical presentations with frequent extrapulmonary dissemination (english abstract). *Mitt Oesterr Ges Tropenmed Parasitol* 14: 257-272
12. Groll A, Schneider M, Keul HG, Horn M, Schlote W, Huebner K (1993). Pathology of toxoplasmosis in AIDS (english abstract). *Mitt Oesterr Ges Tropenmed Parasitol* 15: 219-228

13. Ninane J, Gluckman E, Hann I, Gibson BS, Stevens RF, Darbyshire PJ, Ball LM, Guitierrez AN, Cubbels J, Arce JMI, Sierraseumaga L, Detoledo JS, Sariban E, Berthold F, Heinemann A, Pallett A, Kohler J, Leverger G, Groll A, Moore D, DeRepentigny L, Viscoli C, Perez JL, Borja MB, Contra T (1994). A multicentre study of fluconazole versus oral polyenes in the prevention of fungal infection in children with hematological or oncological malignancies. *Eur J Clin Microbiol Infect Dis* 13: 330-337
14. Schloesser RL, Rettwitz-Volk W, Groll A, v. Loewenich V (1995) Generalisierte Pilzinfektionen bei neonatologischen Patienten. *In* Sitzmann FC (Hrsg.) *Infektionen mit Parasiten und Pilzen im Kindesalter*. Hans Marseille Verlag, Muenchen, pp. 143-148
15. Shiro H, Meluleni G, Groll A, Muller E, Tosteson TD, Goldmann DA, Pier GP (1995) The pathogenic role of *Staphylococcus epidermidis* capsular polysaccharide/adhesin in a low-inoculum rabbit model of prosthetic valve endocarditis. *Circulation* 92: 2715-2722
16. Groll AH, Shah PM, Mentzel C, Schneider M, Just-Nuebling G, Huebner K (1996) Trends in the postmortem epidemiology of invasive fungal infections at a university hospital. *J Infect* 33: 23-32
17. Boehler T, Baeumler C, Herr I, Groll A, Kurz M, Debatin KM (1997) Activation of the CD95 system increases with disease progression in human immunodeficiency virus type 1-infected children and adolescents. *Pediatr Infect Dis J* 16: 754-759
18. Groll AH, Just-Nuebling G, Mueller C, Nowak-Goettl U, Schwabe D, Shah PM, Kornhuber B. (1997) Fluconazole vs. nystatin in the prevention of *Candida* infections in children undergoing remission induction or consolidation chemotherapy for cancer. *J Antimicrob Chemother* 40: 855-862
19. Groll AH, Keul HG, Brodt R, Schneider M. (1998) AIDS-associated atypical *Pneumocystis carinii* pneumonia revisited. *Clin Infect Dis* 26: 1005-1006.
20. Groll AH, Sein T, Petraitis V, Petraitiene R, Callender D, Gonzales C, Giri N, Bacher J, Piscitelli S, Walsh TJ (1998). Compartmental pharmacokinetics and tissue distribution of the pradimicin-derivative BMS 181184 in rabbits. *Antimicrob. Agents Chemother* 42: 2700-2705
21. Gonzalez CE, Groll AH, Giri N, Shetty D, Al-Mohsen I, Sein T, Feuerstein E, Bacher J, Piscitelli S, Walsh TJ (1998). Antifungal activity and single-dose pharmacokinetics of the Pradimicin derivative BMS-181184 in treatment of experimental pulmonary aspergillosis in persistently neutropenic rabbits. *Antimicrob. Agents Chemother.* 42: 2399-2404
22. Petraitis V, Petraitiene R, Groll AH, Bell A, Callender DP, Candelario M, Lyman CA, Bacher J, Walsh TJ. (1998) Efficacy of LY-303366 against invasive pulmonary aspergillosis. *Antimicrob Agents Chemother* 42: 2898-2905
23. Groll AH, Gonzalez CE, Kligys K, Feuerstein E, Bacher J, Piscitelli S, Walsh TJ. (1999) Liposomal nystatin against experimental pulmonary aspergillosis in persistently neutropenic rabbits: Efficacy, safety, and non-compartmental pharmacokinetics. *J Antimicrob Chemother* 43, 95-103.

24. Groll AH, Kurz M, Schneider W, Witt V, Schmidt H, Schneider M, Schwabe D, Kornhuber B (1999). Five-year survey of invasive aspergillosis in a pediatric cancer center: Incidence, clinical presentation, management, and long-term survival. *Mycoses* 42, 431-442
25. Petraitiene R, Petraitis V, Groll AH, Candelario M, Sein T, Bell A, Peter J, Lyman CA, Schaufele RL, McMillian CL, Bacher J, Walsh TJ (1999). Antifungal efficacy, safety, and single-dose pharmacokinetics of LY30366, a novel echinocandin, in experimental disseminated candidiasis in persistently neutropenic rabbits. *Antimicrob Agents Chemother* 43, 2148-2155
26. Groll AH, Mickiene D, Werner K, Bazemoore S, Wallace TL, Piscitelli SC, Walsh TJ (1999). High performance liquid chromatographic determination of liposomal nystatin in plasma and tissues for pharmacokinetic and tissue distribution studies. *J. Chromatography B* 735, 51-62.
27. Groll AH, Petraitis V, Petraitiene R, Field-Ridley A, Candelario M, Walsh TJ (1999). Antifungal efficacy and safety of multilamellar liposomal nystatin against disseminated candidiasis in persistently neutropenic rabbits. *Antimicrob Agents Chemother* 43, 2463-2467.
28. Groll AH, Piscitelli S, Mickiene D, Walsh TJ. Penetration of lipid formulations of amphotericin B and nystatin into bone marrow and fat tissue in rabbits. *Antimicrob Agents Chemother* 2000; 44: 408-410.
29. Groll AH, Mickiene D, Werner K, Petraitiene R, Petraitis V, Candelario M, Field-Ridley A, Crisp J, Piscitelli SC, Walsh TJ. Compartmental pharmacokinetics and tissue distribution of multilamellar liposomal nystatin in rabbits. *Antimicrob Agents Chemother* 2000; 44: 950-957
30. Groll AH, Giri N, Petraitis V, Petraitiene R, Candelario M, Bacher JS, Piscitelli SC, Walsh TJ. Comparative Central Nervous System distribution and antifungal activity of lipid formulations of amphotericin B in rabbits. *J Infect Dis* 2000; 182: 274-282.
31. Chiou CC, Groll AH, Gonzalez CE, Callender D, Venzon D, Pizzo PA, Wood L, Walsh TJ. Esophageal Candidiasis in Pediatric AIDS: Clinical Manifestations and Risk Factors. *Pediatr Infect Dis J* 2000; 19: 729-734.
32. Groll AH, Gullick BM, Petraitiene R, Petraitis V, Candelario M, Piscitelli SC, Walsh TJ. Compartmental plasma pharmacokinetics of the antifungal echinocandin MK-0991 in rabbits. *Antimicrobial Agents Chemother* 2001; 45: 596-600
33. Petraitis V, Petraitiene R, Groll AH, Sein T, Schaufele RL, Lyman CA, Francesconi A, Bacher J, Piscitelli S, Walsh TJ. Dose-dependent antifungal efficacy of the echinocandin VER-002 (LY-303366) against experimental oropharyngeal and esophageal candidiasis. *Antimicrob Agents Chemother* 2001; 45: 471-479
34. Petraitiene R, Petraitis V, Groll AH, Sein T, Candelario M, Field-Ridley A, Avila N, Bacher J, Walsh TJ. Antifungal activity and pharmacokinetics of posaconazole (SCH56592) in treatment and prevention of invasive pulmonary aspergillosis: Correlation with galactomannan antigenemia. *Antimicrob Agents Chemother* 2001; 45: 857-869.
35. Groll AH, Mickiene D, Petraitiene R, Petraitis V, Field-Ridley A, Candelario M, Piscitelli SC, Walsh TJ. Pharmacokinetic and pharmacodynamic modeling of anidulafungin (LY303366): Reappraisal of its efficacy in neutropenic animal models of opportunistic mycoses using optimal plasma sampling. *Antimicrob Agents Chemother* 2001; 45: 2845-2855

36. Groll AH, Mickiene D, Petraitis V, Petraitiene R, Alfaro R, Ibrahim KH, Piscitelli SC, Walsh TJ. Compartmental pharmacokinetics and tissue distribution of the antifungal echinocandin-like lipopeptide FK463 in rabbits. *Antimicrob Agents Chemother* 2001; 45: 3322-3327
37. Chiou CC, Groll AH, Mavrogiorgos N, Wood L, Walsh TJ. Esophageal Candidiasis in Pediatric HIV-infected patients after the introduction of highly active antiretroviral therapy. *Pediatr Infect Dis J* 2002; 21: 388-392
38. Groll AH, Mickiene D, McEvoy M, Dad L, Townley E, Piscitelli S, Wood L, Walsh TJ. Safety, pharmacokinetics and pharmacodynamics of cyclodextrin itraconazole in pediatric patients with oropharyngeal candidiasis. *Antimicrob Agents Chemother* 2002; 46: 2554-2563.
39. Walsh TJ, Lutsar I, Driscoll T, Dupont B, Roden M, Gharamani P, Hodges M, Groll AH, Perfect JR. Voriconazole in the treatment of aspergillosis, scedosporiosis, and other invasive fungal infections in children. *Pediatr Infect Dis J* 2002; 21: 240-248
40. Petraitiene R, Petraitis V, Groll AH, Sein T, Schaufele R, Francesconi A, Avila N, Bacher J, Walsh TJ. Antifungal efficacy of caspofungin (MK-0991) in experimental pulmonary aspergillosis in persistently neutropenic rabbits: Pharmacokinetics, drug disposition, and relationship to galactomannan-antigenemia. *Antimicrob Agents Chemother* 2002; 46: 12-23
41. Petraitis V, Petraitiene R, Groll AH, Sein T, Schaufele RL, Bacher J, Walsh TJ. Comparative Antifungal Activity of the Echinocandin Micafungin against Disseminated Candidiasis and Invasive Pulmonary Aspergillosis in Persistently Neutropenic Rabbits. *Antimicrob Agents Chemother* 2002; 46: 1857-1869
42. Petraitis V, Petraitiene R, Sarafandi AA, Kelaher AM, Lyman CA, Casler HE, Sein T, Groll AH, Bacher J, Avila NA, Walsh TJ. Combination therapy in treatment of experimental pulmonary aspergillosis: synergistic interaction between an antifungal triazole and echinocandin. *J Infect Dis* 2003; 187: 1834-1843
43. Groll AH, Mickiene D, Petraitis V, Petraitiene R, Alfaro RM, King CH, Piscitelli SC, Walsh TJ. Drug Disposition, Urinary Pharmacokinetics, and Renal Effects of Multilamellar Liposomal Nystatin and Amphotericin B Deoxycholate in Rabbits. *Antimicrob Agents Chemother* 2003; 47: 3917-3925
44. Petraitiene R, Petraitis V, Lyman C, Groll AH, Mickiene D, Bacher J, Roussillon M, Hemmings D, Armstrong D, Avila N, Walsh TJ. Efficacy, safety, and plasma pharmacokinetics of escalating dosages of intravenously administered ravuconazole di-lysine phosphoester in experimental pulmonary aspergillosis in persistently neutropenic rabbits. *Antimicrob Agents Chemother* 2004; 48: 1188-1196
45. Petraitis V, Petraitiene R, Kelaher AM, Sarafandi AA, Sein T, Mickiene D, Bacher J, Groll AH, Walsh TJ. Efficacy of PLD-118, a novel inhibitor of Candida Isoleucyl-tRNA synthetase, against experimental oropharyngeal and esophageal candidiasis caused by fluconazole-resistant *C.albicans*. *Antimicrob Agents Chemother* 2004; 48: 3959-3967
46. Petraitiene R, Petraitis V, Kelaher AM, Sarafandi AA, Mickiene D, Groll AH, Sein T, Bacher J, Walsh TJ. Efficacy, Plasma Pharmacokinetics, and Safety of Icofungin, an Inhibitor

- of *Candida* Isoleucyl-tRNA Synthetase, in Treatment of Experimental Disseminated Candidiasis in Persistently Neutropenic Rabbits. *Antimicrob Agents Chemother.* 2005 ;49:2084-92.
47. Groll AH, Mickiene D, Petraitis V, Petraitiene R, Kelaher A, Sarafandi A, Wuerthwein G, Walsh TJ. Compartmental pharmacokinetics and tissue distribution of the antifungal triazole ravuconazole (BMS-207147) following administration of its intravenous prodrug BMS-379244 to rabbits. *J Antimicrob Chemother* 2005; 56: 899-907
48. Wurthwein G, Groll AH, Hempel G, Adler-Shohet FC, Lieberman JM, Walsh TJ. Population pharmacokinetics of amphotericin B lipid complex in neonates. *Antimicrob Agents Chemother.* 2005; 49: 5092-8.
49. Groll AH, Attarbaschi A, Schuster FR, Herzog N, Grigull L, Dworzak MN, Beutel K, Laws HJ, Lehrnbecher T. Treatment with caspofungin in immunocompromised pediatric patients: a multicenter survey. *J Antimicrob Chemotherapy* 2006; 57: 527-535
50. Groll AH, Lyman CA, Petraitis V, Petraitiene R, Alfaro R, Mickiene D, Bacher JS, Walsh TJ. Comparative compartmentalized intrapulmonary pharmacokinetics of four licensed amphotericin B formulations in rabbits. *Antimicrob Agents Chemother.* 2006;50:3418-23
51. Meisel R, Kuypers L, Dirksen U, Schubert R, Gruhn B, Strauss G, Beutel K, Groll AH, Duffner U, Blutters-Sawatzki R, Holter W, Feuchtinger T, Gruttner HP, Schrotten H, Zielen S, Ohmann C, Laws HJ, Dilloo D. Pneumococcal conjugate vaccine provides early protective antibody responses in children after related and unrelated allogeneic hematopoietic stem cell transplantation. *Blood.* 2006 Nov 7; [Epub ahead of print]
52. Th.Lehrnbecher, J.Kaiser, D.Varwig, J.Ritter, AH Groll, U.Creutzig, T.Klingebiel and D.Schwabe. Antifungal usage in children undergoing intensive treatment for acute myeloid leukemia: analysis of the multicenter clinical trial AML-BFM 93. *Eur J Clin Microbiol Infect Dis.* 2007 Oct;26(10):735-8.
53. Simon A, Lehrnbecher T, Bode U, Groll AH, Tramsen L, Wieland R, Molitor E, Laws HJ. Piperacillin-tazobactam in pediatric cancer patients younger than 25 months: A multicenter survey *Eur J Clin Microbiol Infect Dis.* 2007 Nov;26(11):801-6.
54. Hope WW, Mickinie D, Petraitis V, Petraitiene R, Klaher AM, Hughes JE, Cotton MP, Bacher J, Keirns JJ, Buell D, Heresi G, Benjamin Jr. DK, Groll AH, Drusano GL, Walsh TJ. The Pharmacokinetics and Pharmacodynamics of Micafungin in Experimental Hematogenous *Candida* Meningoencephalitis: Implications for Echinocandin Therapy in Neonates. *J Infect Dis.* 2008 Jan 1;197(1):163-71.
55. Queiroz-Telles F, Berezin E, Leverger G, Freire A, van der Vyver A, Chotpitayasunondh T, Konja J, Diekmann-Berndt H, Koblinger S, Groll AH, Arrieta A; for the Micafungin Invasive Candidiasis Study Group. Micafungin Versus Liposomal Amphotericin B for Pediatric Patients With Invasive Candidiasis: Substudy of a Randomized Double-Blind Trial. *Pediatr Infect Dis J.* 2008 Sep;27(9):820-6.
56. Allinson K, Kolve H, Gumbinger HG, Vormoor HJ, Ehlert K, Groll AH. Liposomal amphotericin B followed by voriconazole for secondary antifungal prophylaxis in pediatric allogeneic stem cell recipients *J Antimicrobial Chemotherapy* 2008 Mar;61(3):734-42.

57. Lehrnbecher T, Laws HJ, Boehm A, Dworzak M, Janssen G, Simon A, Groll AH. Compliance with Anti-Infective Preventive Measures: A Multicenter Survey among Paediatric Oncology Patients. *Eur J Cancer*. 2008; Sep;44(13):1861-5.
58. Masjosthusmann K, Ehlert K, Eing BR, Roth J, Koehler G, Juergens H, Fruehwald M, Groll AH. Delay in B-lymphocyte recovery and function following rituximab for EBV-associated lymphoproliferative disease early post-allogeneic hematopoietic SCT. *Bone Marrow Transplant*. 2009 May;43(9):679-84.
59. Kolve H, Ahlke E, Fegeler W, Ritter J, Jürgens H, Groll AH. Safety, tolerance and outcome of treatment with liposomal amphotericin B in paediatric patients with cancer or undergoing haematopoietic stem cell transplantation. *J Antimicrob Chemother*. 2009 Aug;64(2):383-7.
60. Zaoutis T, Lehrnbecher T, Groll AH, Steinbach WJ, Jafri HS, Maertens J, Ngai AL, Chow JW, Taylor AF, Strohmaier KM, Bourque M, Bradshaw SK, Petrecz M, Kartsonis NA. Safety experience with caspofungin in pediatric patients. *Pediatr Infect Dis J*. 2009 Dec;28(12):1132-5.
61. Walsh TJ, Driscoll T, Milligan P, Wood N, Schlamm H, Groll AH, Jafri H, Arrieta A, Klein N, and Lutsar I. Pharmacokinetics, safety, and tolerability of voriconazole in hospitalized children. *Antimicrob Agents Chemother* (*under review*)
62. Nita L. Seibel, Aziza Shad, Ihor Bekersky, Corina Gonzalez, Andreas H. Groll, Lauren Wood, Paul Jarosinski, Donald Buell, and Thomas J. Walsh Safety, Tolerability and Pharmacokinetics of Liposomal Amphotericin B in Immunocompromised Pediatric Patients *Antimicrob Agents Chemother* (*under review*)
63. Arrieta A, Maddison P, Groll AH. Micafungin in pediatric patients: assessemnt of safety in clinical trials. *Pediatr Infect Dis J* (*under review*)
64. Groll AH, Young C, Schwerdtfeger R, Ostermann H, Heinz WJ, Cornely OA, Würthwein G, Silling G. Randomized comparison of safety, tolerance and pharmacokinetics of caspofungin, liposomal amphotericin B and the combination of both in allogeneic hematopoietic stem cell recipients (CASLAMB trial). *Antimicrobial Agents Chemother* July 2010 E-published ahead of print
65. Lehrnbecher Th, Frank C, Engels K, Kriener S, Groll AH, Schwabe D. Postmortem epidemiology of invasive fungal infections at a university hospital. *J Infection* 2010; 61: 259-265
66. Lehrnbecher T, Attarbaschi A, Duerken M, Garbino J, Gruhn B, Kontny U, Luer S, Phillips R, Scholz J, Wagner HJ, Wiesel T, Groll AH. Posaconazole salvage treatment in paediatric patients: a multicentre survey. *Eur J Clin Microbiol Infect Dis*. 2010 May 22.
67. Jan Rohr<sup>1\*</sup>, Karin Beutel<sup>2\*</sup>, Andrea Maul-Pavivic<sup>3\*</sup>, Thomas Vraetz<sup>3</sup>, Jens Thiel<sup>3,4</sup>, Klaus Warnatz<sup>3</sup>, Ilka Bondzio<sup>3</sup>, Ute Gross-Wieltsch<sup>5</sup>, Michael Schündeln<sup>6</sup>, Barbara Schütz<sup>7</sup>, Wilhelm Woessmann<sup>8</sup>, Andreas H. Groll<sup>9</sup>, Bastian Walz<sup>10</sup>, Brigitte Strahm<sup>1</sup>, Julia Pagel<sup>2</sup>, Gritta Janka<sup>2</sup>, Klaus Schwarz<sup>3, 11</sup>, Udo zur Stadt<sup>2,12, 13</sup> and Stephan Ehl<sup>3</sup>. Immunological analysis of patients

with atypical familial hemophagocytic lymphohistiocytosis due to mutations in UNC13D and STXBP2. *Haematologica* (under review).

68. Anna Skiada, Livio Pagano, Andreas Groll, Stefan Zimmerli, Bertrand Dupont, Katrien Lagrou, Cornelia Lass-Flörl, Emilio Bouza, Nikolai Klimko, Peter Gaustad, Malcolm Richardson, Petr Hamal, Murat Akova, Jacques F Meis, Juan-Luis Rodriguez-Tudela, Emmanuel Roilides, Angeliki Mitrousia-Ziouva, George Petrikkos, for the European Confederation of Medical Mycology Working Group on Zygomycosis Zygomycosis in Europe: Analysis of 230 cases accrued by the registry of the ECMM Working Group on Zygomycosis between 2005 and 2007. *Clin Microbiol Infect* 2011 (*under review*)

69. MJGT Rüping<sup>1</sup>, JJ Vehreschild<sup>2</sup>, AHGroll<sup>3</sup>, C Lass-Flörl<sup>4</sup>, H Ostermann<sup>5</sup>, M Ruhnke<sup>6</sup>, OA Cornely<sup>1,7</sup> Current Issues in the Clinical Management of Invasive Aspergillosis – The AGIHO, DMycG, ÖGMM, and PEG Web-based Survey and Expert Consensus Conference 2009 Mycoses (under review)

70. M Karthaus<sup>1</sup>, MJGT Rüping<sup>2</sup>, OA Cornely<sup>2,3,4</sup>, A. Steinbach<sup>2</sup>, A.H Groll<sup>5</sup>, C Lass-Flörl<sup>6</sup>, H Ostermann<sup>7</sup>, M Ruhnke<sup>8</sup>, JJ Vehreschild<sup>9</sup> Current Issues in the Clinical Management of Invasive Candida Infections – The AGIHO, DMycG, ÖGMM, and PEG Web-based Survey and Expert Consensus Conference 2009 Mycoses (under review)

71. Bochenek K, Tramsen L, Schedler N, Becker M, Klingebiel T, Groll AH and Lehrnbecher T. Liposomal amphotericin B twice weekly as antifungal prophylaxis in pediatric high risk patients. *Clin Microbiol Infect Dis* (*accepted Jan-2011*)

72. Daebritz J, Tintelnot K, Wintergerst U, Jendreyko N, Schuster F, Kremens B, Attarbashi A, Schrod L, Lehrnbecher T, and Groll AH. Mucormycosis – epidemiology and outcome in pediatric patients. *Mycoses* (*accepted Jan-2011*)

73. Cornely OA<sup>(\*)1,2,3</sup>, Vehreschild JJ<sup>(\*)1</sup>, Vehreschild MJGT<sup>1</sup>, Würthwein G<sup>4</sup>, Arenz D<sup>2</sup>, Schwartz S<sup>5</sup>, Heussel CP<sup>6</sup>, Silling G<sup>7</sup>, Mahne M<sup>2</sup>, Franklin J<sup>8</sup>, Harnischmacher U<sup>2</sup>, Wilkens A<sup>1</sup>, Farowski F<sup>1</sup>, Karthaus M<sup>9</sup>, Lehrnbecher T<sup>10</sup>, Ullmann AJ<sup>11</sup>, Hallek M<sup>1,3</sup>, Groll AH<sup>12</sup>  
A phase II dose escalation study of caspofungin for invasive aspergillosis. *Antimicrobial Agents Chemotherapy* (*submitted 02/2011*)

74. Gudrun Würthwein<sup>1</sup>, Charlotte Young<sup>1</sup>, Claudia Lanvers-Kaminsky<sup>2</sup>, Georg Hempel<sup>2,3</sup>, Rainer Schwerdtfeger<sup>4</sup>, Helmut Ostermann<sup>5</sup>, Werner J. Heinz<sup>6</sup>, Oliver A. Cornely<sup>7</sup>, Hedwig Kolve<sup>8</sup>, Joachim Boos<sup>2</sup>, Gerda Silling<sup>9</sup>, and Andreas H. Groll<sup>10\*</sup> Population Pharmacokinetics of Liposomal Amphotericin B and Caspofungin in Allogeneic Hematopoietic Stem Cell Recipients. *Antimicrobial Agents Chemother* (*submitted 02/2011*)

75. Tragiannidis A, Fegeler W, Rellensmann G, Debus V, Müller V, Hörnig-Franz I, Siam K, Pama ZD, Jürgens H, and Groll AH. Candidaemia in a German Pediatric University Hospital: A 10 Year Observational Study. *Clin Microbiol Infect* (*submitted 07-2011*)

## Case Reports

1. Nowak-Goettl U, Kreuz W, Falk S, Groll A, Wolff H, Huebner K (1988). Kaposisarkom - ein autoptisch gesicherter Zufallsbefund bei einem HIV-infizierten Jugendlichen mit Haemophilie A. In Landbeck G, Marx R (eds). Verhandlungs-berichte 19.Haemophiliesymposium. Springer Verlag, Berlin: 119-124
2. Groll A, Renz S, Gerein V, Schwabe D, Katschan G, Schneider M, Huebner K, Kornhuber B (1992). Fatal hemophthisis associated with invasive pulmonary aspergillosis treated with high-dose amphotericin B and granulocyte-colony stimulating factor (GM-CSF). *Mycoses* 35: 67-75
3. Groll A, Beeg T, Ehrenberg A, Kreuz WD, Kornhuber B (1994) Pneumocystis-carinii pneumonia despite aerosolized pentamidine prophylaxis (english abstract). *Monatsschr Kinderheilkd* 142: 491-494
4. Wacker P, Ozsahin H, Groll AH, Gervaix A, Humbert J. Trimethoprim Sulfamethoxazole salvage for refractory listeriosis during maintenance chemotherapy for ALL. *J Pediatr Hematol Oncol* 2000; 22: 340-343
5. Groll AH, Baumann-Koehler M, Storkebaum B, Kuehn J, Juergens H, Vormoor J. Durable Clearance of Hepatitis B Virus following Allogeneic Blood Stem Cell Transplantation by Adoptive Immunity Transfer and Antiviral Chemotherapy. *Pediatr Infect Dis J* 2003; 22: 753-755
6. Vormoor J, Ehlert K, Groll AH, Koch HG, Frosch M, Roth J. Successful hematopoietic stem cell transplantation in Farber Disease. *J Pediatr* 2004; 144: 132-134
7. Groll AH, Kolve H, Ehlert K, Paulussen M, Vormoor J. Pharmacokinetic interaction between voriconazole and ciclosporin A following bone marrow transplantation. *J Antimicrob Chemother* 2004; 53: 113-114
8. Schloesser RL, Schaefer V, Groll AH. Fatal transplacental infection with nontyphoidal Salmonella. *Scand J Infect Dis* 2004; 36: 773-774
9. Hoehn R, Groll AH, Schaefer V, Bauer K, Schloesser RL. Linezolid treatment of glycopeptide-resistant Enterococcus faecium in very low birth weight premature neonates. *Intern J Antimicrob Agents* 2006; 27: 256-258.
10. Ehlert K, Groll AH, Kuehn J, Vormoor J. Leflunomide for refractory CMV-reactivation following hematopoietic stem cell transplantation. *Klin Padiatr* 2006; 218: 180-184
11. Florax A, Ehlert K, Becker K, Vormoor J, Groll AH. Bordetella pertussis respiratory infection following hematopoietic stem cell transplantation: time for universal vaccination? *Bone Marrow Transplant.* 2006;38:639-40.
12. Chiou CC, Seibel NL, Derito FA, Bulas D, Walsh TJ, Groll AH. Concomitant Candida Epiglottitis and Disseminated Varicella zoster Virus Infection Associated With Acute Lymphoblastic Leukemia. *J Pediatr Hematol Oncol.* 2006; 28:757-759.
13. Holzinger D, Kühn J, Ehlert K, Groll AH. HSV-1 viremia as cause of febrile neutropenia in an immunocompromised child. *J Pediatr Hematol Oncol.* 2010 Jan;32(1):e19-21

14. Kerl K, Koch B, Fegeler W, Rössig C, Ehlert K, Groll AH. Catheter-associated aspergillosis of the chest wall following allogeneic hematopoietic stem cell transplantation. *Transplant Infect Dis* (submitted 2010)
15. Linden T, Schnittger S, Groll AH, Juergens H, Rossig C. Childhood B-cell precursor ALL in a patient with familial thrombocytopenia and germline RUNX1 mutation. *Leukemia* (submitted 2010)
16. Ehlert K, Groll AH. Myelosarcoma in Fanconi's Anemia. *Blood* 2010; 116: 4744
16. Ehlert K, Groll AH, Roessig C, Fruehwald MC, Juergens H. Very late graft failure in Fanconi anemia – case report and review. *Transplantation* (submitted 2010)

### Review Articles

1. Seht P, Zielen S, Groll A, Ahrens P. Bronchoalveolar lavage: diagnostic role in pediatrics (english abstract). *TW Paediatric* 1994; 7: 29-35
2. Groll A, Jaeger G, Hoerlin A, Lang C, Jacobi G. Neurological complications of infectious endocarditis (english abstract). *Klin Paediatr* 1995; 207: 19-23
3. Groll AH and Walsh TJ. Potential new antifungal agents. *Curr Opin Infect Dis* 1997; 10: 449-458
4. Groll AH, Seht P, Ahrens P, Schwabe D. Diagnostic approach to the pediatric cancer patient with fever and pulmonary infiltrates (english abstract). *Monatsschr Kinderheilk* 1997; 145: 1197-1207
5. Groll, AH, Piscitelli SC, Walsh TJ. Clinical pharmacology of systemic antifungal agents: a comprehensive review of agents in clinical use, current investigational compounds, and putative targets for antifungal drug development . *Adv Pharmacol*. 1998; 44: 343-500
6. Groll AH, Mueller, FMC. Advances in prevention and treatment of infectious complications in children and adolescents with cancer . *Klin. Paediatr*. 1998; 210: 106-114
7. Groll AH, De Lucca AJ, Walsh TJ. Emerging targets for novel antifungal therapeutics. *Trends Microbiol* 1998; 6: 117-124
8. Groll AH, Jaeger G, Allendorf A, Herrmann G, Schloesser R, v. Loewenich V. Invasive pulmonary aspergillosis in a critically ill neonate - case report and review of invasive aspergillosis in the first three months of life. *Clin Infect Dis* 1998; 27: 437-452
9. Groll AH, Mueller FMC, Piscitelli SC, Walsh TJ. Lipid formulations of Amphotericin B: Clinical perspectives for the management of invasive fungal infections in children with cancer. *Klin Padiatr* 1998; 210: 264-273
10. Lehrnbecher T, Groll AH, Channock SJ. Treatment of fungal infections in immunocompromised children. *Curr Opin Pediatr* 1999; 10: 47-55

11. Mueller FM, Groll AH, Walsh TJ Current approaches to diagnosis and treatment of fungal infections in HIV-infected children. *Eur J Pediatr* 1999; 158: 187-199
12. Walsh TJ, Groll AH. Emerging fungal pathogens: evolving challenges to immunocompromised patients for the twenty-first century. *Transpl Infect Dis* 1999; 1: 247-261
13. Groll AH, Walsh TJ. MK-0991. *Current Opinion in Anti-infective Investigational Drugs* 1999; 1: 334-345
14. Chiou, C, Groll AH, Walsh TJ. New drugs and novel targets for treatment of invasive fungal infections in patients with cancer. *Oncologist* 2000; 5: 120-135.
15. Groll AH, Walsh TJ. MK-0991. *Idrugs - The Investigational Drugs Journal* 1999; 11: 1201-1212
16. Groll AH, Walsh TJ. FK-463. *Current Opinion in Anti-infective Investigational Drugs* 2000; 2: 405-412/
17. Walsh TJ, Roden M, Roilides E, Groll AH. Concepts in design of comparative clinical trials of antifungal therapy in neutropenic patients. *Int J Antimicrob Agents* 2000; 16: 151-156 .
18. Walsh TJ, Viviani AM, Arathoon E, Chiou C, Ghannoum MA, Groll AH, Odds F. New targets and delivery systems for antifungal therapy. *Medical Mycology* 2000; 38(suppl.1): 335-347
19. Cagnoni PJ, Brown J, Einsele H, Groll AH, Wingard JR. Fungal Infections after allogeneic stem cell transplantation. *Blood and Marrow Transplantation Reviews* 2000; 10: 5-18
20. Groll AH, Walsh TJ. Uncommon Opportunistic Fungi: New Nosocomial Threats. *Clin Microbiol Infect* 2001; 7 Suppl.2: 8-24
21. Groll AH, Piscitelli SC, Walsh TJ. Antifungal pharmacodynamics. Concentration-effect relationships in vitro and in vivo. *Pharmacotherapy* 2001; 21: 133S-148S.
22. Groll AH, Walsh TJ. Caspofungin: Pharmacology, Safety, and therapeutic potential in superficial and invasive fungal infections. *Expert Opinion on Investigational Drugs* 2001; 10: 1545-1558
23. Groll AH, Walsh TJ. Fungal Infections and the Neutropenic Cancer Patient Current Approaches and Future Practices. *Infections in Medicine* 2002; 19: 326-334
24. Groll AH, Walsh TJ. Antifungal Chemotherapy: Recent advances and current perspectives. *Swiss Medical Weekly* 2002; 132: 303-311
25. Groll AH. Itraconazole – Perspectives for the management of invasive aspergillosis. *Mycoses* 2002; 45 (suppl.3): 48-55.
26. Groll AH, Glasmacher A, Just-Nuebling G, Maschmeyer G, Walsh TJ. Clinical Pharmacology of antifungal compounds. *Infect Dis Clin North Amer* 2003; 17: 159-191

27. Groll AH. Antimicrobial therapy of invasive fungal infections in patients with cancer – current approaches and future strategies. Business Briefing: European Pharmacotherapy. Business Briefings Ltd., London, UK (2003): pp. 118-121.
28. Groll AH, Kolve H. Antifungal agents: In vitro susceptibility testing, pharmacodynamics, and prospects for combination therapy. Eur J Clin Microbiol Infect Dis 2004; 23: 256-270
29. Boucher H, Chiou CC, Groll AH, Walsh TJ. Newer antifungal agents. Drugs 2004; 64: 1997-2020
30. Walsh TJ, Groll A, Hiemenz J, Fleming R, Roilides E, Anaissie E. Infections due to emerging and uncommon medically important fungal pathogens. Clin Microbiol Infect 2004; 10 Suppl.1: 48-66
31. Cortez KJ, Groll AH, Walsh TJ. Resources for Medical Mycology on the WorldWide Web. Clin Infect Dis. 2005; 40: 437-450.
32. Groll AH, Stergiopoulou T, Roilides E, Walsh TJ. Micafungin: pharmacology, experimental therapeutics and clinical applications. Expert Opin Investig Drugs. 2005; 14: 489-509.
33. Groll AH, Lehrnbecher T. New antifungal drugs and the pediatric cancer patient: current status of clinical development. Klin Padiatr. 2005; 217: 158-168.
34. Groll AH, Walsh TJ. Posaconazole: clinical pharmacology and potential for management of fungal infections. Expert Rev Anti Infect Ther. 2005; 3: 467-87.
35. Groll AH & Silling G: Clinically Relevant Pharmacologic Properties of Newer Antifungal Agents. Ann Hematol 2006; 85 (suppl.1): 33-35
36. Groll AH and Walsh TJ. Antifungal efficacy and pharmacodynamics of posaconazole in experimental models of invasive fungal infections. Mycoses 2006;49 Suppl 1:7-16.
37. Chiou CC, Walsh TJ and Groll AH. Clinical pharmacology of antifungal agents in pediatric patients. Expert Opin Pharmacother. 2007 Oct;8(15):2465-89.
38. Groll AH. Posaconazole for prevention and treatment of invasive fungal infections. Hospital Pharmacy Europe 2007 (*submitted*)
39. Lehrnbecher T, Groll AH. Experiences with the use of caspofungin in pediatric patients. Mycoses 2008; 51 (Suppl.1): 58-64
40. Groll AH, Roilides E, Walsh TJ. Pediatric Pharmacology of Antifungal Agents. Current Fungal Infection Reports 2008; 2: 49-56
41. Groll AH, Lehrnbecher T. Posaconazole for paediatric patients: status of development and future perspectives. Mycoses. 2008 Sep;51 Suppl 2:5-11.
42. Groll AH and McNeil L. Current challenges in the diagnosis and management of invasive fungal infections. Int J Antimicrob Chemother Int J Antimicrob Agents. 2009 Feb;33(2):101-4..

43. Tragiannidis A and Groll AH. Hyperbaric oxygen therapy and other adjunctive treatments for zygomycosis. *Clin Microbiol Infect*. 2009 Oct;15 Suppl 5:82-6.
44. Walsh TJ, Petraitis V, Petraitiene R, Solomon J, Bacher JD, Greene L, Cotton M, Groll AH, Roilides E, Avila N, Pyrgos V, Shoham S. Diagnostic imaging of experimental invasive pulmonary aspergillosis. *Med Mycol*. 2009;47 Suppl 1:S138-45.
45. Groll AH, Tragiannidis A. Recent advances in antifungal prevention and treatment. *Semin Hematol*. 2009 Jul;46(3):212-29.
46. Dornbusch HJ, Manzoni P, Roilides E, Walsh TJ, Groll AH. Invasive fungal infections in children. *Pediatr Infect Dis J*. 2009 Aug;28(8):734-7.
47. Groll AH. Update on invasive opportunistic mycoses: clinical trials review, 2008-2009. *Curr Infect Dis Rep*. 2009 Nov;11(6):417-9.
48. Lehrnbecher T, Tramsen L, Bochennek K, Groll AH. Strategies in antifungal therapy: what is different in children? *J Invasive Fungal Infections* 2009; 3: 2-8
49. Tragiannidis A, Bisping G, Koehler G, Groll AH Minireview: Malasseziainfections in immunocompromised patients. *Mycoses*. 2009 Dec 17. [Epub ahead of print]
50. Däbritz J, Schneider M, Just-Nuebling G, Groll AH. Minireview: invasive fungal infection complicating acute Plasmodium falciparum malaria. *Mycoses*. 2009 Dec 17. [Epub ahead of print]
51. Johan Maertens, Andreas H. Groll, Catherine Cordonnier, Rafael de la Camara, Emmanuel Roilides and Oscar Marchetti. Pathways for managing invasive mould disease in immunocompromised patients: Treatment and timing. *J Antimicrobial Chemother* (in preparation)
52. Andreas H. Groll<sup>1</sup> and Athanasios Tragiannidis<sup>2</sup>. Update on Antifungal Agents for Pediatric Patients. *Clin. Microbiol Infect* (under review)
53. Thomas Lehrnbecher and Andreas H. Groll. Micafungin: A brief review of Pharmacology, Safety and Antifungal Efficacy in Pediatric Patients. *Pediatr Blood Cancer* 2010;55:229–232
54. Groll AH, Lehrnbecher T. Clinical Development of micafungin in children and neonates. *Mycoses* (submitted August 2010)
55. Lehrnbecher TH, Bochennek K, Schrey D, Groll AH. Antifungal Therapy in Pediatric Patients. *Current Fungal Infection Reports* (submitted October 2010)
56. Groll AH and Schrey D. The current role of posaconazole in managing zygomycosis. *Curr Fungal Infect Rep* 2010; 5:29-33

57. Johan Maertens<sup>1\*</sup>, Andreas H. Groll<sup>2</sup>, Catherine Cordonnier<sup>3</sup>, Rafael de la Cámara<sup>4</sup>, Emmanuel Roilides<sup>5</sup> and Oscar Marchetti Treatment and timing in invasive mould disease J Antimicrob Chemother 2011; 66 Suppl 1: i37–43
58. Tragiannidis A, Roilides E, Walsh T, Groll AH. Invasive aspergillosis in children with acquired immunodeficiencies. Clin Infect Dis (*submitted Jan-2011*)
59. Groll AH. Efficacy and Safety of Antifungals in Pediatric Patients. Early Human Development (*submitted Jan-2011*)

### **Guidelines of Professional Societies**

1. Groll AH, Ritter J, Mueller FMC. Prevention of *Pneumocystis carinii* pneumonitis in children and adolescents with cancer. German Society for Pediatric Oncology and Hematology/German Pediatric Infectious Disease Society. Klin Paediatr 2001; 213S1: A38-A49
2. Groll AH, Ritter J, Mueller FMC. Prevention of fungal infections in children and adolescents with cancer. German Society for Pediatric Oncology and Hematology/ German Pediatric Infectious Disease Society. Klin Paediatr 2001; 213S1: A50-A68.
3. Langebrake C, Uhlenbrock S, Ritter J, Groll AH. Drug interactions of antimicrobial agents in children with cancer. German Society for Pediatric Oncology and Hematology/ German Pediatric Infectious Disease Society. Klin Paediatr 2005; 217(suppl.1): S168-S177
4. Kolve H, Silling G, Ritter J, Groll AH. Antimicrobial agents in pediatric cancer patients with hepatic or renal impairment. German Society for Pediatric Oncology and Hematology/ German Pediatric Infectious Disease Society. Klin Paediatr 2005; 217(suppl.1):S1-S15
5. Groll AH, Ritter J. Diagnosis and management of fungal infections and Pneumocystis pneumonitis in pediatric cancer patients – guidelines of the GPOH/DGPI Infectious Diseases Working Party. Klin Paediatr 2005; 217(suppl.1): S37-S66
6. Schuster F, Beutel K, Groll AH, Simon A, Laws HJ. Diagnosis and treatment of viral infections in children and adolescents with neoplastic diseases – Guidelines of the GPOH/DGPI Infectious Diseases Working Party. Klin Paediatr 2005; 217(suppl.1):
7. Groll AH, Dieter Buchheidt<sup>2</sup>, Oliver Cornely<sup>3</sup>, Andreas Glöckner<sup>4</sup>, Werner Heinz<sup>5</sup>, Rainer Höhl<sup>6</sup>, Regine Horré<sup>7</sup>, Meinolf Karthaus<sup>8</sup>, Peter Kujath<sup>9</sup>, Cornelia Lass-Flörl<sup>10</sup>, Elisabeth Presterl<sup>11</sup>, Peter Rath<sup>12</sup>, Volker Rickerts<sup>13</sup>, Jörg Ritter<sup>1</sup>, Birgit Willinger<sup>14</sup>, und Markus Ruhnke. Diagnose und Therapie von *Candida* Infektionen: Gemeinsame Empfehlungen der Deutschsprachigen Mykologischen Gesellschaft (DMYKG) und der Paul-Ehrlich-Gesellschaft für Chemotherapie (PEG). Chemotherapie Journal (*submitted 2011*)
8. Ruhnke M, Dieter Buchheidt<sup>2</sup>, Oliver Cornely<sup>3</sup>, Andreas Glöckner<sup>4</sup>, Werner Heinz<sup>5</sup>, Rainer Höhl<sup>6</sup>, Regine Horré<sup>7</sup>, Meinolf Karthaus<sup>8</sup>, Peter Kujath<sup>9</sup>, Cornelia Lass-Flörl<sup>10</sup>, Elisabeth Presterl<sup>11</sup>, Peter Rath<sup>12</sup>, Volker Rickerts<sup>13</sup>, Jörg Ritter, Birgit Willinger, Groll AH.

Diagnosis and Therapy of Candida infections: Joint recommendations of the German Speaking Mycological Society (DMyKG) and the Paul-Ehrlich-Society for Chemotherapy (PEG). *Mycoses (submitted 2011)*

9. A. Skiada, F. Lanternier, A. H. Groll, L. Pagano, S. Zimmerli, R. Herbrecht, O. Lortholary, G. Petrikos on behalf of the third European Conference on Infections in Leukemia\*  
Diagnosis and treatment of zygomycosis: Guidelines from the 3rd European Conference on Infections in Leukemia (ECIL 3). *Lancet Infectious Diseases (submitted 2011)*

## **Editorials/Letters**

1. Groll AH, Walsh TJ (1999). Liposomal formulations of amphotericin B (editorial comment). *Cliniguide to Fungal Infections* 10: 5-8.
2. Walsh TJ, Wayne AS, Chanock SJ, Groll AH. Empirical antifungal therapy (editorial comment). *Oncology* 2001; 15: 368-369
3. Groll AH. Drug therapy in pediatric patients (letter). *The Lancet* 2000; 357: 719
4. Walsh TJ, Groll AH. Non-fumigatus species of *Aspergillus*: Perspectives on emerging pathogens in immunocompromised hosts (*editorial comment*). *Curr Opin Invest Drugs* 2001; 2: 1366-1367.
5. Groll AH. Introduction to Current Fungal Infection Reports. *Current Fungal Infection Reports* 2007; 1: 1-2
6. Groll AH. Practice Point Commentary: Posaconazole vs. Fluconazole or Itraconazole Prophylaxis in Patients with Neutropenia. *Nature Clinical Practice Oncology* 2007 (*submitted*)
7. Sung L, Aplenc R, Zaoutis T, Groll AH, Gibson B, Lehrnbecher T. Infections in pediatric acute myeloid leukemia: Lessons learned and unresolved questions. *Pediatr Blood Cancer*. 2008 Jun 16;51(4):458-460.
8. Dornbusch HJ, Manzoni P, Roilides E, Walsh TJ and Groll AH. Invasive fungal infections in children. *Pediatr Infect Dis J* (in press, 2009)
9. Ehlert K and Groll AH. Myelosarcoma in Fanconi anemia. *Blood* (submitted)
10. Groll AH, Lehrnbecher T. Commentary on “Antifungal therapy in infants and children with proven, probable or suspected invasive fungal infections (Review)”. *Evidence Based Child Health* 2010 (under review)
11. Lehrnbecher T and Groll AH. Invasive fungal infections in the pediatric population. *Expert Reviews in Anti-infective Therapy (submitted 12-2010)*
12. Groll AH. Non-albicans Candida Arten. *Dtsch Arztebl* 2011; 108: 320

## Books and other monographs

1. Groll AH. Basics and clinical application of the teichoic acid antibody assay in *Staphylococcus aureus* infections (dissertation). Frankfurt/Main, Germany: J.W.Goethe-University, 1987. 236 pages.
2. Groll AH. Preclinical investigation of the pharmacokinetics and pharmaco-dynamics of a multilamellar liposomal formulation of nystatin (habilitation thesis). Frankfurt/Main, Germany: J.W.Goethe-University, 2001. 350 pages.
3. Stille W, Brodt HR, Groll AH, Just-Nuebling G- Antibiotika-Therapie. Klinik und Praxis der antiinfektiösen Behandlung. 11.Auflage, Schattauer-Verlag 2005.

## Book chapters

1. Woelki U, Schlote W, Thomas E, Enzensberger W, Fischer PA, Helm EB, Hacker H, Berkefeld J, Huebner K, Stutte HJ, Groll AH. Die Affektion des zentralen und peripheren Nervensystemes bei AIDS. In: *Medicennale XVIII*, Iserlohn: pp.149-188 (1988).
2. Groll, A.H., and Walsh, T.J. Antifungal Triazoles. In: *Antimicrobial Chemotherapy and Vaccines*. Victor L. Yu, Thomas C. Merigan, Steven Barriere (eds.). Williams and Wilkins, Baltimore: pp. 1158-1170 (1998)
3. Irwin R, Groll AH, Walsh TJ. Antifungal drugs. In: *Side effects of drugs, Annual 21*, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 282-292 (1998)
4. Walsh TJ, Mueller FMC, Groll AH, Gonzalez C, Roilides E. Fungal infections in children with Human Immunodeficiency Virus. In: *Pediatric AIDS (3rd. ed.)*. Pizzo PA, Wilfert CM (eds.). Williams & Wilkins, Baltimore (1998)
5. Irwin R, Groll AH, Walsh TJ. Antifungal drugs. In: *Side effects of drugs, Annual 22*, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 285-301 (1999)
5. Groll AH, Walsh TJ. Aspergillosis. In: *Atlas of Infectious Diseases, volume 12: Fungal Infections*. Mandell GL and Diamond RD (eds.) Current Medicine, Philadelphia: pp.135-160 (2000)
6. Groll AH, Walsh TJ. Polyene Antifungal Agents. In: *Fungal Diseases of the Lung, 3rd edition*. Sarosi GA, Davies SF (eds). Lippincott Williams & Wilkins, Philadelphia: pp. 271-295 (2000)
7. Chiou CH, Groll AH, Walsh TJ. Antifungal drugs. In: *Side effects of drugs, Annual 23*, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 289-303 (2000).
8. Groll AH, Irwin R, Lee JW, Pizzo PA, Walsh TJ. Management of specific infectious complications in children with leukemias and lymphomas. In: *Infections in Immunocompromised Infants and Children, 2<sup>nd</sup> edition*. Patrick CC (ed). Lippincott Williams & Wilkins: pp. 111-143 (2001)

9. Groll AH, Chiou CC, Walsh TJ. Antifungal drugs. In: Side effects of drugs, Annual 24, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 314-329 (2001)
10. Groll AH, Walsh TJ. Antifungal drugs. In: Side effects of drugs, Annual 25, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam (2002)
11. Groll AH, Walsh TJ. Fungal infections in pediatric patient. In: Clinical Mycology. Anaissie EJ, McGinnis MR, Pfaller MA (eds); Churchill Livingstone, Philadelphia, PA: pp. 417-442 (2003)
12. Groll AH, Walsh TJ. Recent developments in epidemiology and management of invasive fungal infections. In Lazarus HM, Laughlin MJ: Allogeneic stem cell transplantation. Clinical Research and Practice. Humana Press, Totowa, NJ: pp. 191-213 (2003)
13. Groll AH, Walsh TJ. Antifungal Agents. In Feigin, Cherry, Demmler, and Kaplan: Textbook of Pediatric Infectious Diseases, 5th edition. WB Saunders, Philadelphia, PA: pp. 3075-3108 (2003)
14. Groll AH, Walsh TJ. Antifungal drugs. In: Side effects of drugs, Annual 26, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 302-314 (2003)
15. Groll AH, Walsh TJ. Cell wall synthesis inhibitors. In Oxford Textbook of Clinical Mycology. Dismukes WE, Pappas PG, Sobel JD (eds.). Oxford University Press, New York, NY: pp. 88-103 (2003)
16. Gea Banaclouche J, Groll AH, Walsh TJ. Fungal infections in neutropenic patients. In Oxford Textbook of Clinical Mycology. Dismukes WE, Pappas PG, Sobel JD (eds.). Oxford University Press, New York, NY: pp. 427-455 (2003)
17. Liese J, Belohradsky BH, Graubner U, Groll AH, Haas A, Mueller FM. Aspergillus-Infektionen. In: DGPI Handbuch –Infektionen bei Kindern und Jugendlichen, 4. Auflage. Belohradsky BH, Heininger U, Kreth W, Roos R, Scholz H (eds.). Futuramed Verlag, Muenchen: pp. 203-208 (2003)
18. Graubner UB, Schmid I, Belohradsky BH, Groll AH, Lehrnbecher T, Mueller FM, Ritter J, Simon A, Weiss M: Infektionen bei Granulozytopenie. In: DGPI Handbuch –Infektionen bei Kindern und Jugendlichen, 4. Auflage. Belohradsky BH, Heininger U, Kreth W, Roos R, Scholz H (eds.). Futuramed Verlag, Muenchen: pp. 857-876 (2003)
19. Shoan S, Groll AH, Walsh TJ. Antifungal agents. In Cohen J, Powderly W(eds): Infectious Diseases, 2<sup>nd</sup> ed. Mosby Publishers, Edinburgh,: pp 1925-1940 (2004)
20. Groll AH. Praevention invasiver Pilzinfektionen. In Zernikow B, Simon A, Fruehwald M, Baumann-Koehler M, Juergens H. Medikamentoesse Supportivtherapie in der Kinderonkologie. UNI-Med Verlag (*submitted*)
21. Groll AH, Lehrnbecher T, Simon A, Ritter J. Praevention, Diagnostik und Therapie von Infektionen. In Gadner H, Gaedicke G, Niemeier C, Ritter J. Paediatrische Haematologie und Onkologie. Springer Verlag (2005)

22. Groll AH, Walsh TJ. Antifungal Agents: Other Classes and Compounds. In: Wingard JR, Anaissie EJ, eds. *Fungal Infections in the Immunocompromised Patient*. Boca Raton, FL: Taylor & Francis Group, 2005: 509-527.
23. Groll, A.H., Kolve H, and Walsh, T.J. Azoles. In: *Antimicrobial Chemotherapy and Vaccines, Volume II 2<sup>nd</sup> edition.* Yu, VL, Edwards G, Mckinnon PS, Peloquin C, Morse G. (eds.). ESun Technologies, LLC: Pittsburgh, PA: pp.609-636 (2005).
24. Groll, A.H., Kolve H. Antifungal Agents: In vitro susceptibility testing, pharmacodynamics, and prospects for combination therapy.. In: *Antimicrobial Chemotherapy and Vaccines, Volume II 2<sup>nd</sup> edition.* Yu, VL, Edwards G, Mckinnon PS, Peloquin C, Morse G. (eds.). ESun Technologies, LLC: Pittsburgh, PA: pp.573-590 (2005).
25. Groll AH, Kolve H, Walsh TJ. Antifungal drugs. In: *Side effects of drugs, Annual 27*, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 276-288 (2004)
26. Walsh TJ, Roilides E, Groll AH, Gonzalez C, Pizzo PA. Infectious complications in pediatric cancer patients. In Pizzo PA and Poplack DG (eds): *Principles and Practice of Pediatric Oncology*, 5<sup>th</sup> edition. Lippincott Williams & Wilkins; Philadelphia, PA: Page 1269-1329 (2006)
27. Schuster V, Groll AH. Pilzinfektionen. In Kiess, Merckenschlager, Pfaeffle, Siekmeyer (eds): *Therapie im Kindes-und Jugendalter*. Urban & Fischer, 1<sup>st</sup> ed. (*in press*)
28. Groll AH, Kolve H, Walsh TJ. Antifungal drugs. In: *Side effects of drugs, Annual 28*, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam: pp. 294-314 (2005)
29. Groll AH, Chiou CC, Walsh TJ. Antifungal drugs. In *Meyler's Side Effect of Drugs*, 15<sup>th</sup> edition.. Aronson JK (ed): Elsevier Sciences, Amsterdam (2006)
29. Groll AH, Ritter J. Invasive fungal infections in pediatric patients. In: Cornely, O: *Invasive fungal infections in immunocompromised patients*. Unimed Verlag, Bremen; pp.88-97 (2006)
30. Groll AH, Walsh TJ: Aspergillosis. In *Atlas of Fungal Infections*, 2<sup>nd</sup> edition. Edited by Mandell GL and Kauffman CA. Philadelphia: Current Medicine LLC / Springer; pp.145-178 (2006)
31. Groll AH, Kolve H, Walsh TJ. Antifungal drugs. In: *Side effects of drugs, Annual 29*, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam (*in press*)
32. Schwarze R, Groll AH, Mueller FM, Roos R, Graubner UB, Höger P. Candidia-Infektionen. In: *DGPI Handbuch –Infektionen bei Kindern und Jugendlichen*, 5. Auflage. Belohradsky BH, Heininger U, Kreth W, Roos R, Scholz H (eds.).Futuramed Verlag, Muenchen: (*submitted*)
33. Graubner UB, Schmid I, Belohradsky BH, Groll AH, Lehnbecher T, Mueller FM, Ritter J, Simon A, Weiss M: Infektionen bei Granulozytopenie. In: *DGPI Handbuch –Infektionen bei Kindern und Jugendlichen*, 5. Auflage. Belohradsky BH, Heininger U, Kreth W, Roos R, Scholz H (eds.).Futuramed Verlag, Muenchen: (*submitted*)

34. Graubner U, Groll AH, Mueller FM, Nenoff P, Ritter J. Mucormykose. Infektionen bei Granulozytopenie. In: DGPI Handbuch –Infektionen bei Kindern und Jugendlichen, 5. Auflage. Belohradsky BH, Heininger U, Kreth W, Roos R, Scholz H (eds.).Futuramed Verlag, Muenchen: (submitted)
35. Groll AH, Belohradsky BH, Graubner U, Liese J, Schuster F, Haas A, Mueller FM. Aspergillose. In: DGPI Handbuch –Infektionen bei Kindern und Jugendlichen, 5. Auflage. Belohradsky BH, Heininger U, Kreth W, Roos R, Scholz H (eds.).Futuramed Verlag, Muenchen: (submitted)
36. Groll AH, Koehler J, Walsh TJ. Invasive fungal infections in children: advances and perspectives. In Pediatric Infectious Diseases Revisited. Schroten H, Wirth S (eds). Schmitt A, Wolf MH, Kaufmann SHE: Advances in Infectious Diseases, Birkhäuser Publishers, Basel, Switzerland, 2007: pp.405-472
37. Groll AH. Fungal infections. In: Lehrnbecher Th: Infections in immunocompromised pediatric oncology patients. Unimed Verlag, Bremen 2007 (submitted).
38. Groll AH, Roilides E, Walsh TJ. Fungal infections in pediatric patient. In: Clinical Mycology, 2<sup>nd</sup> edition. Anaissie EJ, McGinnis MR, Pfaller MA (eds); Churchill Livingstone, Philadelphia, PA: pp.481-499 (2009)
39. Groll AH, Walsh TJ. Antifungal drugs. In: Side effects of drugs, Annual 30, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterda, 2008: pp. 316-335
40. Groll AH, Walsh TJ. Antifungal polyenes. In Aspergillus fumigatus and Aspergillosis. Latge P, Steinbach W (eds). ASM press (submitted).
41. Chiou CC, Groll AH. Infections in the Immunocompromised child. In pediatric Infectious Diseases – The Requisites in pediatrics. Bergelson JM, Shah SS, Zaoutis TE (eds.).Mosby-Elsevier, Philadelphia, PA, 2008: pp.297-309
42. Groll AH, Roilides E, Walsh TJ. Invasive aspergillosis in pediatric patients. In Pasqualotto/Denning: Invasive aspergillosis –from diagnosis to prevention. Springer Publishers (submitted)
43. Tragiannidis A, Groll AH, Velegraki A, Boekhout T. Malassezia Fungemia, Antifungal Susceptibility Testing and Epidemiology of Nosocomial Infections. In: Malassezia and the Skin. Maiser and Velegraki (eds.). Springer Publishers (2010): P. 229-251
44. Shoan S, Groll AH, Walsh TJ. Antifungal agents. In Cohen J, Powderly W(eds): Infectious Diseases, 3<sup>rd</sup> ed. Mosby Publishers, Edinburgh (submitted 12/2008)
45. Groll AH, Walsh TJ. Antifungal Agents. In Feigin, Cherry, Demmler, and Kaplan: Textbook of Pediatric Infectious Diseases, 6th edition. WB Saunders, Philadelphia, PA (in press 2009)
46. Groll AH, Ritter J. Invasive fungal infections in pediatric patients. In: Cornely, O: Invasive fungal infections in immunocompromised patients, 2<sup>nd</sup> edition. Unimed Verlag, Bremen (submitted 10/2009)

47. Groll AH, Schrey D, Walsh TJ. Echinocandins. In Oxford Textbook of Clinical Mycology. Dismukes WE, Pappas PG, Sobel JD (eds.). Oxford University Press, New York, NY (*submitted 01-2010*)
48. Schrey D, Walsh TJ, Groll AH. Antifungal drugs. In: Side effects of drugs, Annual 32, Chapter 27. Aronson JK, van Boxtel CJ (eds.). Elsevier Science, Amsterdam (*submitted 01-2010*)
49. Walsh TJ, Groll AH, and Roilides E. Infectious complications of hematological malignancies in children, adolescents and young adults. In Cairo M (ed): Hematological >> Malignancies in Children, Adolescents and Young Adults (*submitted February 2011*)

### **Electronic Media**

1. Groll AH, Schloesser RL. Aspergillosis in neonates. In Aspergillus website at [www.aspergillus.man.ac.uk](http://www.aspergillus.man.ac.uk). Denning DW (ed) (1999) (updated 2000)
2. Groll AH, Walsh TJ. FK463, a novel echinocandin-like lipopeptide. In Aspergillus website at [www.aspergillus.man.ac.uk](http://www.aspergillus.man.ac.uk). Denning DW (ed) (2000)
3. Groll AH, Walsh TJ. Invasive fungal infections in the neutropenic cancer patient: Current approaches and future strategies. Medscape Infectious Diseases at [www.medscape.com/viewarticle/439191](http://www.medscape.com/viewarticle/439191), posted 09/05/2002
4. Groll AH. Antimicrobial therapy of invasive fungal infections in patients with cancer – current approaches and future strategies. Business Briefing: European Pharmacotherapy. Business Briefings Ltd., London, UK (2003): [www.bluebus.com](http://www.bluebus.com)