

**DUKE UNIVERSITY MEDICAL CENTER**

**CURRICULUM VITAE**

For Permanent Record and the  
Appointments and Promotions Committee

Name (complete with degrees): Detlev Erdmann MD, PhD

Marital Status: Married

Primary academic appointment: Division of Plastic, Reconstructive  
Maxillofacial and Oral Surgery

Primary academic department: Department of Surgery, DUMC

Secondary appointments: -Chief, Section of Plastic Surgery, Durham  
VA Medical Center

Present academic rank and title: Assistant Professor

Date/rank first Duke Faculty appointment: June 01, 2000; Clinical Associate

Medical Licensure: North Carolina License # 2000-00341  
2004-00852

Date of License: June 05, 2000 / July 23, 2004

Specialty certifications and dates: General Surgery (Germany); February 1998  
Plastic Surgery (Germany); May 2000  
Hand Surgery (Germany); July 2003

Date of birth: May 26, 1963 Place: Frankfurt/Main, Germany

Citizen of: Germany

Visa status: US permanent resident, INS A# 047-568-275

<u>Education:</u>	<u>Institution</u>	<u>Date</u>	<u>Degree</u>
High School/College	Goethe Gymnasium Frankfurt (Germany)	1982	German Abitur

Graduate School	University of Berlin (Germany), preclinical	1986	
	University of Munich (Germany), clinical	1990	MD

Doctoral Thesis:

"Influence of Ethanol on the Interferon-Gamma and Interleukin-2-production of human peripheral lymphocytes" was accepted for publication in January 1992 by the University of Munich (Technische Universität)

Habilitation (PhD equivalent):

"Expression of Vascular Endothelial Growth Factor (VEGF) in myocutaneous flaps" accepted for publication by the University of Heidelberg, December 2003; faculty appointment (Privatdozent), January 2004

Professional training and academic career:

<u>Institution</u>	<u>Position/Title</u>	<u>Dates</u>
Department of Surgery Städtische Kliniken Offenbach am Main, Goethe-University of Frankfurt (Germany)	Internship (AIP)	08/1990 - 01/1992
Department of Surgery Städtische Kliniken Offenbach am Main, Goethe-University of Frankfurt (Germany)	Resident	06/1992 - 12/1995, and 03 - 08/1996
Institute for Plastic and Reconstructive Surgery Southern Illinois University Springfield, Illinois	Research Fellow	07/1994 - 06/1995
Dep. Hand-, Plastic and Reconstructive Surgery -Burn Center- BG Unfallklinik Ludwigshafen Ruprecht-Karls-University Heidelberg (Germany)	Resident	01 - 02/1996, and 09/1996 - 05/2000
Dep. Orthopedic Surgery/Traumatology BG Unfallklinik Ludwigshafen Ruprecht-Karls-University Heidelberg (Germany)	Resident	01 - 07/1997

Publications:

## 1. Refereed journals:

1. Brown R.E., **Erdmann D.**: Complications of 50 consecutive wrist fusions by a single surgeon. *Ann Plast Surg* 35:46-53, 1995
2. **Erdmann D.**, Roth A.C., Hussmann J., Lyons S.F., Kucan J.O., Russell R.C.: Skin allograft rejection and hyperbaric oxygen treatment in immune-histoincompatible mice. *Undersea Hyperb Med* 22:395-399, 1995
3. Brown R.E., **Erdmann D.**, Lyons S.F., Suchy H.: The use of cultured Schwann cells in nerve repair in a rabbit hind limb model. *J Reconstr Microsurg* 12:149-152, 1996
4. **Erdmann D.**, Roth A.C., Hussmann J., Lyons S.F., Mody N.J., Brown R.E., Kucan J.O.: Hyperbaric oxygen and Cyclosporine as a combined treatment regimen to prevent skin allograft rejection in immune-histoincompatible mice. *Ann Plast Surg* 36:304-308, 1996
5. Zamboni W.A., Mazolewski P.J., **Erdmann D.**, Bergman B.A., Hussmann J., Cooper M.D., Smoot E.C., Russell R.C.: Evaluation of Penicillin and Hyperbaric oxygen in the treatment of streptococcal myositis. *Ann Plast Surg* 39:131-136, 1997
6. Yang X.-W., Feng Y.-Z., Ji W.-J., Sun Y.-X., **Erdmann D.**, Germann G.: A profile of acute-phase proteins after severe burns *Eur J Plast Surg* 23:28-31, 2000
7. Sauerbier M., Tränkle M., **Erdmann D.**, Menke H., Germann G.: Functional outcome with scaphotrapeziotrapezoid arthrodesis in the treatment of Kienböck's disease stage III. *Ann Plast Surg* 44:618-625, 2000
8. **Erdmann D.**, Lee B., Roberts C.D., Levin L.S.: Management of lawnmower injuries to the lower extremity in children and adolescents. *Ann Plast Surg* 45:595-600, 2000
9. Haws M.J., **Erdmann D.**, Bayati S., Brown R.E., Russell R.C.: Basic Fibroblast Growth Factor induced angiogenesis and prefabricated flap survival. *J Reconstr Microsurg* 17:39-42, 2001
10. Küntscher M.V., **Erdmann D.**, Homann H.-H., Steinau H.U., Levin L.S., Germann G.: The concept of fillet flaps: classification, indications, and analysis of their clinical value. *Plast Reconstr Surg* 108:885-896, 2001
11. **Erdmann D.**, Drye C., Heller L., Wong M.S., Levin L.S.: Abdominal wall defect and enterocutaneous fistula treatment with the Vacuum-assisted closure (V.A.C.) system. *Plast Reconstr Surg* 108:2066-2068, 2001
12. Küntscher M.V., Blome-Eberwein S., Pelzer M., **Erdmann D.**, Germann G.: Transcardiopulmonary vs pulmonary arterial thermodilution methods for hemodynamic monitoring of burned patients. *J Burn Care Rehab* 23:21-26, 2002
13. **Erdmann D.**, Sundin, B.M., Yasui K., Wong M.S., Levin L.S.: Microsurgical free flap transfer to amputation sites: indications and results. *Ann Plast Surg*, 48:167-172, 2002
14. **Erdmann D.**, Sundin B.M., Moquin K.J., Young H., Georgiade G.S.: Delay in unipedicled TRAM flap reconstruction of the breast: a review of 76 consecutive cases. *Plast Reconstr Surg* 110:762-767, 2002
15. Küntscher M.V., Juran S., Menke H., Gebhard M.M., **Erdmann D.**, Germann G.: The role of pre-ischaemic application of the nitric oxide donor spermine/nitric oxide complex in enhancing flap survival in a rat model. *Br J Plast Surg* 55: 430-433, 2002
16. Heitmann C., **Erdmann D.**, Levin L.S.: Treatment of segmental defects of the humerus with use of the osteoseptocutaneous fibula transplant. *JBS* 84-A:2216-1123, 2002
17. **Erdmann D.**, Bergquist G.E.O., Levin L.S.: Ipsilateral reversed free fibula transfer for reconstruction of a segmental femoral shaft defect. *Br J Plast Surg* 55:675-677, 2002
18. **Erdmann D.**, Sweis R., Wong M.S., Niklason L.E., du Laney T.V., Levin L.S., Klitzman B., Olbrich K.C.: Vascular endothelial growth factor expression in pig latissimus dorsi myocutaneous flaps after ischemia reperfusion injury. *Plast Reconstr Surg* 111:775-780, 2003
19. Baumeister S., Spierer R., **Erdmann D.**, Sweis R., Levin L.S., Germann G.: A realistic complication analysis of 70 sural artery flaps in a multimorbid patient group. *Plast Reconstr Surg* 112:129-142, 2003
20. Küntscher M. V., **Erdmann D.**, Boltze W.-H., Germann G.: The use of a free jejunal graft for esophageal reconstruction following perforation after cervical spine surgery. *Spinal Cord* 41:543-548, 2003
21. Wong M.S., **Erdmann D.**, Sweis R., Pöllmann C., Farrar M., Georgiade G.S., Levin L.S., Olbrich K.C., Klitzman B.: Basic-fibroblast growth factor (b-FGF) expression following surgical delay of rat transverse rectus abdominus myocutaneous flaps. *Plast Reconstr Surg* 113:2030-2036, 2004
22. **Erdmann D.**, Sweis R., Heitmann C., Yasui K., Olbrich K.D., Levin L.S., Sharkawy A.A., Klitzman B.: Side-to-side anastomosis using magnets. *J Vasc Surg* 40:505-511, 2004
23. **Erdmann D.**, Pippen A.M., Moquin K.J., Sweis R., Niklason L.E., Levin L.S., Olbrich K.C., Klitzman B.: Immunohistochemical identification of vascular endothelial growth factor in pig latissimus dorsi myocutaneous flaps following ischemia-reperfusion injury. *Ann Plast Surg* 53:398-403, 2004
24. **Erdmann D.**, Pu C.-M., Levin L.S.: Nonunion of the clavicle: a rare indication for vascularized free fibula transfer. *Plast Reconstr Surg* 114:1859-1863, 2004
25. Heitmann C., Khan F.N., **Erdmann D.**, Olbrich K.D., Sharkawy A.A., Klitzman B.: Sutureless anastomosis of a vein graft using magnets. *Plast Reconstr Surg* (in press)

26. Scheufler, O., Andresen, R., Radmer, S., **Erdmann, D.**, Exner, K., Germann, G. Hook of Hamate Fractures: Critical Evaluation of Different Therapeutic Procedures. *Plast Reconstr Surg* (in press)
27. **Erdmann D.**, Gottlieb N., Humphrey J.S., Le T.C., Bruno W., Levin L.S.: Sural Flap Delay Procedure – a preliminary report. *Ann Plast Surg* (in press)
28. Wang H.T., Hartzell T., Olbrich K.C., **Erdmann D.**, Georgiade G.S.: Delay of TRAM flap reconstruction improves flap reliability in the obese patient. *Plast Reconstr Surg* (in press)

### 1. a. Refereed journals [German]:

1. Hussmann J., Hebebrand D., **Erdmann D.**, Roth A., Kucan J.O., Moticka J.: Lymphocyte subpopulations in spleen and blood after early wound debridement and acute/chronic treatment with hyperbaric oxygen [in German]. *Handchir Mikrochir Plast Chir* 28:103-107, 1996
2. **Erdmann D.**, Cedidi C., Schepler H., Germann G.: Plastic surgery concepts for coverage of extremity defects within the scope of general surgery [in German]. *Chirurg* 68:454-460, 1997
3. Germann G., **Erdmann D.**, Sauerbier M., Bickert B.: Plastic surgery defect coverage in the area of the pelvis and trunk [in German]. *Chirurg* 68:469-476, 1997
4. **Erdmann D.**, Schierle H., Sauerbier M., Germann G., Lemperle G.: Reconstruction of severe facial defects due to noma [in German]. *Chirurg* 69:1257-1262, 1998
5. **Erdmann D.**, Küntschler M., Petravic A., Sauerbier M., Menke H., Schirren J., Dienemann H., Germann G.: Plastic surgery coverage of osteocutaneous defects of the sternum area with the vertical and transversal rectus abdominis muscle (VRAM/TRAM) flap [in German]. *Chirurg* 71: 1156-1160, 2000
6. Sauerbier M., **Erdmann D.**, Brüner S., Pelzer M., Menke H., Germann G.: Covering soft tissue defects and unstable scars over the Achilles tendon by free microsurgical flap-plasty [in German]. *Chirurg* 71:1161-1166, 2000
7. Menke H., Baumeister S., **Erdmann D.**, Sauerbier M., Germann G.: Therapeutic options in treatment of heel defects. Presentation of an algorithm for therapeutic strategy [in German]. *Chirurg* 71:311-318, 2000
8. Sauerbier M., **Erdmann D.**, Bickert B., Wittemann M., Germann G.: Defect coverage of the hand and forearm with a free scapula-parascapula flap [in German]. *Handchir Mikrochir Plast Chir* 33:20-25, 2001
9. Menke H., Baumeister S., Buchhold C., **Erdmann D.**, Sauerbier M., Germann G.: Therapeutic strategies for covering traumatic defects of the heel area [in German]. *Unfallchirurg* 104:1145-1149, 2001
10. **Erdmann D.**, Sweis R., Wong M.S., Eyler C.E., Olbrich K.C., Levin L.S., Germann G., Klitzman B.: Current perspectives of orthogonal polarization spectral imaging in plastic surgery [in German]. *Chirurg* 73:827-832, 2002
11. Giessler G.A., **Erdmann D.**, Germann G.: Plastic surgery coverage of skin defects [in German]. *Chirurg* 73:290-304, 2002
12. Küntschler M. V., **Erdmann D.**, Strametz S., Sauerbier M., Germann G., Levin L. S.: The use of fillet flaps in upper extremity and shoulder reconstruction [in German]. *Chirurg* 73:1019-1024, 2002
13. Küntschler M. V., **Erdmann D.**, Levin L.S., Germann G.: Role of a sensory innervated plantar fillet free flap for reconstruction of sacral pressure sores in paraplegic patients. Last resort for reconstruction of sacral pressure sores in paraplegics [in German]. *Chirurg* 74:734-738, 2003
14. Deb R., Giessler G.A., Przybilski M., **Erdmann D.**, Germann G.: Secondary plastic surgical reconstruction in severely burned patients [in German]. *Chirurg* 75:588-98, 2004
15. Przybilski M., Deb R., **Erdmann D.**, Germann G.: New developments in skin replacement materials [in German]. *Chirurg* 75:579-87 2004
16. **Erdmann D.**, Giessler G.A., Bergquist G.E.O., Bruno W., Young H., Heitmann C., Levin L.S.: The free fibula transfer: Analysis of a series of 76 consecutive microsurgical procedures and review of the literature [in German]. *Chirurg* 75:799-809, 2004

### 2. Case Reports:

1. Haws M.J., **Erdmann D.**, Brown R.E.: Above-elbow replantation during pregnancy. *Ann Plast Surg* 36:93-96, 1996
2. **Erdmann D.**, Brown R.E., Rumbolo P.M.: Congenital neuroepithelioma in an infant hand. *Br J Hand Surg* 21:117-121, 1996
3. **Erdmann D.**, Hussmann J., Kucan J.O.: Treatment of a severe alkali burn. *Burns* 22:141-146, 1996

4. **Erdmann D.**, Busching K., Sauerbier M., Germann G.: The Thibierge-Weissenbach syndrome: A rare clinical presentation of generalized soft tissue calcifications associated with scleroderma. *Eur J Plast Surg* 22:326-328, 1999
5. Schuh T.E., **Erdmann D.**, Levin L.S.: Symmetrical peripheral gangrene of unknown etiology [in German]. *Chirurg* 73:638-641, 2002

### 3. Non-refereed publications [English and German]:

1. **Erdmann D.**, Scharrer I., Böckmann U., Nier H.: Das klinische Bild der Thromboseneigung aufgrund genetisch bedingter Gerinnungsstörungen am Beispiel des Protein S-Mangels [in German]. *Chir Praxis* 50:413-419, 1995/96; *Chir Praxis* 52:519-523, 1997; *Internist Praxis* 35:75-81, 1999
2. **Erdmann D.**, Hussmann J., Zamboni W.A., Germann G.: Hyperbarer Sauerstoff als Adjuvans in der Therapie der Streptokokken-Myositis [in German]. *Langenbecks Arch Chir Suppl Kongressbd* 1:67-70, 1996
3. Appel P., **Erdmann D.**, Tonus C., Rohr M., Nier H.: Das rupturierte Aneurysma der Milzarterie als seltene Differentialdiagnose des akuten Abdomens [in German]. *Chir Praxis* 52:519-523, 1997
4. Germann G., **Erdmann D.**: Foot reconstruction with microvascular flaps. *Operative Techniques Plast Reconstr Surg* 4:172-182, 1997
5. Sauerbier M., Bickert B., Kluge S., **Erdmann D.**, Germann G.: Mid-term results of scapho-trapezio-trapezoid arthrodesis in aseptic semilunar bone necrosis stage IIIa/b [in German]. *Langenbecks Arch Chir Suppl Kongressbd* 115:1274-1278, 1998
6. Blome-Eberwein S., **Erdmann D.**, Pelzer M., Germann G.: Verbrennungschirurgie heute. Eine Zusammenfassung für die Praxis [in German]. *Chir Praxis* 56:591-603, 1999/2000
7. Sauerbier M., Tränkle M., Bickert B., **Erdmann D.**, Germann G.: Therapeutische Möglichkeiten zur Behandlung der Lunatumnekrose [in German]. *Trama Berufskrankh* 2:232-238, 2000
8. Levin L.S., **Erdmann D.**: Primary and secondary microvascular reconstruction of the upper extremity. *Hand Clinics N Am* 17:447-455, 2001
9. Levin L.S., **Erdmann D.**, Germann G.: The use of fillet flaps in upper extremity reconstruction. *J Am Soc Hand*, 2:39-44, 2002
10. Schierle H.P., **Erdmann D.**, Lemperle G.: The Buruli type ulcer [letter]. *Plast Reconstr Surg* 109:2608, 2002
11. Altmann J., Küntscher M., **Erdmann D.**, Germann G.: Therapy of decubitus ulcers based on plastic surgery [in German]. *Z Wundheilung* 2:44-47, 2003
12. **Erdmann D.**, Klitzman B.: Discussion on Scheuffler O., et al: Investigation of TRAM flap oxygenation and perfusion by near-infrared reflection spectroscopy and color-coded duplex sonography. *Plast Reconstr Surg* 113:153-155, 2004

### 4. Chapters in books:

1. Sauerbier M., **Erdmann D.**, Pelzer M., Bickert B., Germann G.: Microsurgical reconstruction of defects of the forearm and hand using the combined scapular/parascapular flap. *Adv Upper Lower Extrem Microvascular Reconstructions*, World Scientific Publishing 2002, Singapore, pp 172-181
2. Giessler G.A., **Erdmann D.**, Germann G.: Plastische Deckung von Hautdefekten. In: Bauch J., Betzler M., Lobenhoeffer P. (Eds.) *Chirurgie upgrade 2004*. Springer, 2004, Heidelberg, Germany, pp 114-125

### 5. Editorials, position, and background papers:

1. Reviewer for *Plast Reconstr Surg* since 2001

### Consultant appointments:

-Director, Plastic Surgery/Wound Management, Select Hospital Durham, NC

## Professional awards and special recognitions:

-Invited Visiting Professor:

The Hospital for Sick Children, Toronto (Canada), Topic: "Noma – Reconstructive Opportunities" June 2001

-Two-time participant in the Biomedical Sciences Exchange Program (DAAD sponsored) between Germany and the USA

-Third place residents competition: **Erdmann D.**, Zamboni W.A., Hussmann J., Bergman B.A., Cooper M.D., Smoot E.C., Russell R.C.: Hyperbaric Oxygen treatment improves the outcome of Streptococcal myositis in mice. Annual Scientific Meeting Undersea and Hyperbaric Medical Society, June 1995, Palm Beach, Florida

-First place poster presentation: **Erdmann D.**, Küntscher M., Petravic A., Menke H., Germann G.: Die plastisch-chirurgische Deckung von Thoraxwanddefekten einschließlich der Sternumregion. 8. Annual meeting German Society of Thoracic Surgery, June 1999, Freiburg

-Best poster award: Sundin B.M., **Erdmann D.**, Moquin K.J., Young H., Georgiade G.S.: Vascular delay in unipedicled TRAM flap reconstruction of the breast: a review of 76 consecutive cases. 70<sup>th</sup> Annual Scientific Meeting American Society of Plastic Surgeons, November 2001, Orlando, Florida

-Best paper award European Federation Societies Hand Therapy  
Colditz J.C., **Erdmann D.**, Levin L.S.: Lumbrical tightness: testing and stretching. 7. Congress EFSHT, May 2002, Amsterdam, The Netherlands

-Best paper award American Society Hand Therapists  
Colditz J.C., **Erdmann D.**, Levin L.S.: Clinical implications of differential testing and stretching of the interosseous versus the lumbrical muscles of the hand. 25. Annual meeting ASHT, September 2002, Ottawa, Canada

-Best video award American Society Surgery Hand  
Heitmann C., **Erdmann D.**, Germann G., Levin L.S.: Intrinsic flaps of the hand: anatomical study, clinical applications. ASSH Annual meeting, October 2002, Phoenix, Arizona

-Best scientific paper award World Society Reconstructive Microsurgery  
Heitmann C., Khan R., **Erdmann D.**, Levin L.S., Klitzman B.: Sutureless anastomosis of a vein graft using magnets. 2. Kongress World Society Reconstructive Microsurgery, June 2003, Heidelberg

-Best poster award North Carolina Society of Plastic Surgeons  
Stokes T.H., **Erdmann D.**, Marcus J.R.: Near total avulsion of the ear – a clinical review and anatomic study. Meeting North Carolina Society of Plastic Surgeons, September 2004, Charlotte, NC

## Organizations and participation: (Offices held, committee assignments, etc.):

-Organizing Committee 2. Congress World Society Reconstructive Microsurgery  
Heidelberg Germany, June 2003

-Faculty 1. and 2. Annual Fresh Cadaver Flap Course for Reconstructive Surgery  
Duke University Medical Center, Durham, North Carolina, August 2003 and August 2004

-Two-time participant in the AWD Stiftung Kinderhilfe/Interplast Germany *Noma project* in Sokoto, Nigeria in October 1997 and October/November 1998

-Participant in the two week Interplast Germany/UK project in connection with the Government's 100-day program in Jaffna, Sri Lanka, January 2002

-Participant in a two week Interplast Germany/UK mission in Hambantota, Sri Lanka, October 2004

### Memberships:

- Member, German Society of Surgeons
- Member, Association of German Plastic Surgeons
- Interplast Germany e.V.
- Associate Member, American Society Plastic Surgeons

### Teaching responsibilities including continuing education:

- Regular bedside teaching and teaching in OR of residents and students
- Divisional presentations (weekly conferences and grand rounds)
- Regular Duke medical student lectures
- Teaching of PA and nursing staff, wound clinic 3J

### Areas of research interests (basic and applied):

- Microsurgery and flaps, growth factors, flap monitoring
- Stem cells and osteogenesis
- Clinical outcome studies

### Participation in academic and administrative activities of the University and Medical Center:

- Participant, Course "Surviving and Thriving in Academics (CLP209.01-S2004), spring 2004
- Medical Director, ward 6300 DUMC (July 2005)
- VA Section Chief