

CURRICULUM VITAE



Personal Data

Name: Michael Holzer
Academic degree: M.D.
Day of birth: 11.4.1966, in Linz, Austria
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Education and Training

Undergraduate

09/72 - 07/76 Elementary school Oberneukirchen, Upper Austria
09/76 - 07/80 Bundesrealgymnasium Rohrbach, Upper Austria (high school)
09/80 - 06/85 Höhere technische Bundeslehranstalt für Maschinenbau, Linz, Austria (school of mechanical engineering)
25.6.1985 High school graduation (school of mechanical engineering)
25.6.1986 Supplemental high school graduation in biology (Bundesgymnasium für Berufstätige Linz, Austria)

Graduate

10/86 - 03/94 School of Medicine, Universität Wien, Austria
10.3.1994 Graduation, M.D.

Postgraduate

- 07/89 - 01/91 Research Fellow
Department of Vascular Biology and Thrombosis Research,
University of Vienna, Austria
- 06/93 Course of Biostatistics (Glantz SA), Wissenschaftliche
Landesakademie für Niederösterreich, Austria
- 02/94 - 05/94 Research Fellow
University Clinic of Emergency Medicine, University Hospital, Vienna,
Austria
- 06/94 - 08/95 Rotating Residency
Krankenhaus der Elisabethinen, Linz, Austria
(8 months Internal Medicine, 3 months Urology, 2 month
Gynaecology, 1 month Dermatology)
- 09/95 - 10/96 Rotating Residency
General Hospital Linz, Austria
(1 month Orthopedics, 5 months Traumatology, 2 months Pediatrics,
2 months Surgery, 1 month Dermatology, 2 months Neurology, 1
month Nuclear Medicine)
- 11/96 – 12/97 Postgraduate Training in Emergency Medicine, Medical Association
of Upper Austria
- 11/96 - 02/00 Rotating Residency
University Clinic of Emergency Medicine, University Hospital, Vienna,
Austria
- 03/00 - 09/00 Rotating Residency
Department of Medicine I (Oncology and Hematology), University
Hospital, Vienna, Austria
- 10/00 – 02/01 Rotating Residency
Department of Medicine III (Rheumatology), University Hospital,
Vienna, Austria
- 03/01 – 09/03 Rotating Residency
Department of Emergency Medicine, University Hospital, Vienna,
Austria
- 09/03 – 02/04 Rotating Residency
Intensive Care Unit, Department of Gastroenterology, Medical
University Vienna, Austria
- 03/04 – 09/05 Rotating Residency
Department of Emergency Medicine, Medical University Vienna,
Austria
- 09/05 – 04/06 Rotating Residency
Department of Clinical Pharmacology, Medical University Vienna,
Austria
- since 05/06 Specialist in internal medicine at the Department of Emergency
Medicine, Medical University of Vienna
- 06/06 Assistant Professor of emergency medicine

Certification and Licensure

- 24.01.1998 Degree of Specialist in Emergency Medicine
Austrian Medical Association
- 01.05.2006 Degree of Specialist in Internal Medicine
Austrian Medical Association
- 07.06.2006 Assistant Professor of Emergency Medicine
Medical University of Vienna

Scholarship

- 1992 School achievement scholarship, Medizinisches Dekanat, University
of Vienna, Austria, ATS 10.000,-

Grant

- 12/96 Austrian Nationalbank Anniversary Foundation: „Does Endothelin-1
enhance regional myocardial perfusion during CPR and is there a
higher rate of return of spontaneous circulation in pigs?“ ATS
250,000.- together with Prof. Fritz Sterz (# 6168)

Vienna, 1 November, 2006

PUBLICATIONS

Priv.-Doz. Dr. Michael Holzer

Original Papers

1. Wojta J, **Holzer M**, Hufnagl P, Christ G, Hoover RL, Binder BR. Hyperthermia stimulates plasminogen activator inhibitor type 1 expression in human umbilical vein endothelial cells in vitro. *Am J Pathol.* 1991;139(4): 911-919.
2. Behringer W, Kittler H, Sterz F, Domanovits H, Schoerhuber W, **Holzer M**, Müllner M, Laggner AN. Cumulative epinephrine dose during cardiopulmonary resuscitation and neurologic outcome. *Ann Intern Med.* 1998; 129 (6): 450-456.
3. Muellner M, Sterz F, Behringer W, Schoerhuber W, **Holzer M**, Laggner AN. The influence of chronic prearrest health conditions on mortality and functional neurological recovery in cardiac arrest survivors. *Am J Med* 1998; 104 (4) : 369-373.
4. Domanovits H, Meron G, Sterz F, Kofler J, Oschatz E, **Holzer M**, Müllner M, Laggner AN. Successful Automatic External Defibrillator operation by people trained only in Basic life support in a simulated cardiac arrest situation. *Resuscitation* 1998; 39: 47-50.
5. Domanovits H, Paulis M, Nikfardjam M, **Holzer M**, Stuhlinger HG, Hirschl MM, Laggner AN. Sustained ventricular tachycardia in the emergency department. *Resuscitation.* 1999 ;42(1):19-25.
6. Schoerhuber W, Kittler H, Sterz F, Behringer W, **Holzer M**, Frossard M, Spitzauer S, Laggner AN. Time course of serum neuron-specific enolase - A predictor of neurologic outcome in patients resuscitated from cardiac arrest. *Stroke* 1999 ;30:1598-1603.
7. Rohrbach K, Hindinger D, **Holzer M**, Sterz F. Milde Hypothermie nach Herzstillstand und erfolgreicher Reanimation. *Die Schwester / Der Pfleger* 1999; 38:494-498.
8. Zeiner A, **Holzer M**, Sterz F, Behringer W, Schorkhuber W, Mullner M, Frass M, Siostrzonek P, Ratheiser K, Kaff A, Laggner AN for the Hypothermia after Cardiac Arrest (HACA) Study Group. Mild resuscitative hypothermia to improve neurologic outcome after cardiac arrest. A clinical feasibility trial *Stroke* 2000; 31:86-94.
9. Small M, Yu D, Harrison RG, Robertson C, Clegg G, **Holzer M**, Sterz F. Deterministic nonlinearity in ventricular fibrillation. *Chaos* 2000; 10:1-9.

10. Watson JN, Addison PS, Clegg GR, **Holzer M**, Sterz F, Robertson CE. A Novel Wavelet Transform Based Analysis Reveals Hidden Structure In Ventricular Fibrillation. *Resuscitation* 2000 ;43:121-127.
11. Kürkciyan I, Meron G , Sterz F, Janata J, Domanovits H, **Holzer M**, Berzlanovich A, Bankl HC, Laggner AN. Pulmonary Embolism as Cause of Cardiac Arrest: Presentation and Outcome. *Arch Intern Med* 2000;160:1529-1535.
12. Kliegel A, Scheinecker W, Sterz F, Eisenburger Ph, **Holzer M**, Laggner AN. The attitudes of cardiac arrest survivors and their family members towards CPR-courses. *Resuscitation* 2000;47:147-154.
13. Yu D, Small M, Harrison RG, Robertson C, Clegg G, Holzer M, Sterz F. Measuring temporal complexity of ventricular fibrillation. *Physics Letters A* 2000; 265:68-75.
14. Schiefermeier M, Kollegger H, Madl C, Schwarz C, **Holzer M**, Kofler J, Sterz F. Apolipoprotein E polymorphism: Survival and neurological outcome after cardiopulmonary resuscitation. *Stroke* 2000;31:2068-73.
15. Addison PS, Watson JN, Clegg GR, **Holzer M**, Sterz F, Robertson CE. Evaluating arrhythmias in ECG signals using wavelet transforms. *IEEE Eng Med Biol Mag* 2000;19:104-109.
16. Gendo A, Kramer L, Hafner M, Funk GC, Zauner C, Sterz F, **Holzer M**, Bauer E, Madl C. Time-dependency of sensory evoked potentials in comatose cardiac arrest survivors. *Intensive Care Med* 2001;27:1305-1311.
17. Zeiner A, **Holzer M**, Sterz F, Schoerhuber W, Eisenburger P, Havel C, Laggner AN. Hyperthermia after cardiac arrest is associated with unfavorable neurologic outcome. *Archives of Internal Medicine* 2001;161:2007-2012.
18. Oschatz E, Wunderbaldinger P, Sterz F, **Holzer M**, Slatin H, Janata K, Havel C, Eisenburger P, Bankier AA, Laggner AN. Bystanders do not increase cardiopulmonary resuscitation associated adverse effects assessed by chest radiograph. *Anesth Analg* 2001;93:128-133.
19. Eisenburger P, Czappek G, Sterz F, Vergeiner G, Havel C, Losert H, **Holzer M**, Laggner AN. Cardiac arrest in an Alpine Area During a Six Year Period. *Resuscitation* 2001;51: 39-46.
20. Bur A, Kittler H, Sterz F, **Holzer M**, Eisenburger P, Oschatz E, Kofler J, Laggner AN. Effects of Bystander First Aid, Defibrillation and Advanced Life Support on Neurologic Outcome and Hospital Costs in Patients after Ventricular Fibrillation Cardiac Arrest. *Intensive Care Medicine* 2001; 27:1474-1480.

21. Schreiber W, Gabriel D, Sterz F, Muellner M, Kuerkciyan I, **Holzer M**, Laggner AN. Thrombolytic therapy after cardiac arrest and its effect on neurologic outcome. *Resuscitation* 2002; 52: 63–69
22. Wagner A, Domanovits H, **Holzer M**, Kofler J, Roggla M, Mullner M, Oschatz E, Prager M, Grimm M, Sterz F, Laggner AN. Plasma endothelin in patients with acute aortic disease. *Resuscitation*. 2002;53:71-6.
23. **Holzer M**, Sterz F for the Hypothermia after Cardiac Arrest Study Group. Mild therapeutic hypothermia to improve the neurologic outcome after cardiac arrest. *N Engl J Med* 2002;346:549-56.
24. Bur A, Bayegan K, **Holzer M**, Herkner H, Schreiber W, Siostrzonek P, Hirschl MM, Laggner AN, Domanovits H. Intra-aortic balloon counterpulsation in the emergency department: A 7-year review and analysis of predictors of survival. *Resuscitation* 2002;53:259-254.
25. Kliegel A, Eisenburger P, Sterz F, **Holzer M**, Losert H, Havel C, Stix G, Laggner AN. Survivors of ventricular tachyarrhythmias due to a transient or reversible disorder have a high recurrence rate of lethal cardiac events. *Resuscitation* 2002;54:237-43.
26. Röggl M, Frossard M, Wagner A, **Holzer M**, Bur A, Röggl G. Severe accidental hypothermia with or without hemodynamic instability: Rewarming without the use of extracorporeal circulation. *Wien Klin Wochenschr* 2002;114:315-320.
27. Janata K, **Holzer M**, Domanovits H, Mullner M, Bankier A, Kurtaran A, Bankl HC, Laggner AN. Mortality of patients with pulmonary embolism. *Wien Klin Wochenschr* 2002;114:766-772.
28. **Holzer M**, Sterz F, Behringer W, Oschatz E, Kofler J, Eisenburger P, Kittler H, Konschitzky R, Laggner AN. Endothelin-1 elevates regional cerebral perfusion during prolonged ventricular fibrillation cardiac arrest in pigs. *Resuscitation* 2002;55:317-327.
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34. **Holzer M**, Behringer W, Sterz F, Kofler J, Oschatz E, Schuster E, Laggner AN. Ventricular fibrillation median frequency may not be useful for monitoring during cardiac arrest treated with endothelin-1 or epinephrine. *Anesth Analg* 2004;99:1787-93.
35. **Holzer M**, Bernard SA, Hachimi-Idrissi S, Roine RO, Sterz F, Mullner M; on behalf of the Collaborative Group on Induced Hypothermia for Neuroprotection After Cardiac Arrest. Hypothermia for neuroprotection after cardiac arrest: Systematic review and individual patient data meta-analysis. *Crit Care Med* 2005;33:414-418.
36. Kliegel A, Losert H, Sterz F, Kliegel M, **Holzer M**, Uray T, Domanovits H. Cold simple intravenous infusions preceding special endovascular cooling for faster induction of mild hypothermia after cardiac arrest--a feasibility study. *Resuscitation* 2005;64:347-51.
37. **Holzer M**, Behringer W, Janata A, Bayegan K, Schima H, Deckert Z, Losert U, Laggner AN, Sterz F. Extracorporeal veno-venous cooling for induction of mild hypothermia in human-sized swine. *Crit Care Med* 2005; 33:1346–1350.
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39. **Holzer M**, Mullner M, Sterz F, Robak O, Kliegel A, Losert H, Sodeck G, Uray T, Zeiner A, Laggner AN. Efficacy and Safety of Endovascular Cooling After Cardiac Arrest - Cohort Study and Bayesian Approach. *Stroke* 2006;37: 1792-1797.
40. Haugk M, Robak O, Sterz F, Uray T, Kliegel A, Losert H, **Holzer M**, Herkner H, Laggner AN, Domanovits H. High acceptance of a home AED programme by survivors of sudden cardiac arrest and their families. *Resuscitation* 2006; in press

Case Reports

1. Behringer W, Sterz F, Domanovits H, Schoerkhuber W, **Holzer M**, Foedinger M, Laggner AN. Percutaneous cardiopulmonary bypass for therapy defibrillation resistant ventricular fibrillation cardiac arrest from digoxin overdose. *Resuscitation* 1998; 37: 47-50.
2. **Holzer M**, Sterz F, Schoerkhuber W, Behringer W, Weinmar D, Weinstabl C, Stimpfl T. Successful resuscitation of a patient with percutaneous cardiopulmonary bypass due to verapamil intoxication. *Crit Care Med.* 1999; 27:2818-2823.
3. Lorenz M, **Holzer M**. Kann man eine Alkoholintoxikation von 9 ‰ überleben? *Intensiv News* 2001;4:11-12.

Reviews

1. **Holzer M**, Behringer W, Schoerkhuber W, Zeiner A, Sterz F, Laggner AN, Frass M, Siostrozzonek P, Ratheiser K, Kaff A for the Hypothermia for Cardiac Arrest (HACA) Study Group. Mild hypothermia and outcome after CPR. *Acta Anaesthesiol Scand.* 1997; 41 Suppl. 111 : 55-58.
2. Domanovits H., Muellner M., Paulis M., **Holzer M.**, Sterz F., Laggner A.N. Cardiac arrest and echocardiography. *Acta Anaesthesiol Scand.* 1998;42 Suppl. 112:108-109.
3. **Holzer M**. Quality of survival after cardiopulmonary resuscitation. *Intensiv News* 2000;1:27-28.
4. Eisenburger P, Sterz F, **Holzer M**, Zeiner A, Scheinecker W, Havel C, Losert H. Therapeutic Hypothermia after Cardiac Arrest. *Curr Opin Crit Care* 2001;7:184-8
5. Röggl M, Wagner A, Eisenburger P, Frossard M, **Holzer M**, Röggl G. Wiederbelebung bei Hypothermie und Ertrinken. *Notfall und Rettungsmedizin* 2001 ;4:482-488.
6. **Holzer M**. Neuroprotektion nach kardiopulmonaler Reanimation. *Intensiv News* 2002;4:3-7.
7. Sterz F, **Holzer M**, Roine R, Zeiner A, Losert H, Eisenburger P, Uray T, Behringer W. Hypothermia after cardiac arrest: a treatment that works. *Curr Opin Crit Care.* 2003;9:205-210.
8. **Holzer M**, Sterz F. Therapeutic hypothermia after cardiopulmonary resuscitation. *Expert Rev Cardiovasc Ther* 2003;1:317-325.
9. Madl C, **Holzer M**. Brain function after resuscitation from cardiac arrest. *Curr Opin Crit Care* 2004;10:213-217.

10. **Holzer M**, Behringer W. Therapeutic Hypothermia after Cardiac Arrest. *Curr Opin Anesth* 2005;18:163-8.
11. Behringer W, **Holzer M**, Sterz F. Präklinische erweiterte Reanimationsmaßnahmen: Sinn oder Unsinn? *Intensiv News* 2004;5:8-11.
12. Behringer W, **Holzer M**, Sterz F. Was machen wir falsch bei der Wiederbelebung nach Herzstillstand. *Intensiv News* 2005;1:18-19.
13. Behringer W, Sterz F, **Holzer M**, Arrich J. Update in internistischer Intensivmedizin: Reanimation. *Universum Innere Medizin* 2005;06:29-30.

Letters

1. **Holzer M**, Sterz F, Behringer W. New research in the field of stroke: Therapeutic hypothermia after cardiac arrest. *Stroke* 2003;34 (8): E103-E103. (Letter).

Abstracts

1. Wojta J, Gessl A, Christ G, **Holzer M**, Lang I, Binder BR. Endothelial cell growth supplement (ECGS) stimulates urokinase type plasminogen activator (u-PA) production by human pulmonary artery smooth muscle cells (HPASMC). *J Cell Biochem.* 1990; Suppl. 14E: 87.
2. Wojta J, Christ G, **Holzer M**, Hoover RL, Binder BR. Influence of hyperthermia on the fibrinolytic potential of human endothelial cells. *J Cell Biochem.* 1990; Suppl. 14E: 218.
3. Wojta J, **Holzer M**, Gessl A, Kohrgruber N, Christ G, Binder BR. A 30 kD protein from bovine hypothalamus stimulates expression of urokinase type plasminogen activator (u-PA) by human pulmonary artery smooth muscle cells (HPASMC). *Thrombosis Hemostasis.* 1991; 65: 881.
4. Sitzwohl C, Ewald A, Sterz F, **Holzer M**, Laggner AN, Lischka M. Acceptance and efficiency of a new course format for teaching cardiopulmonary resuscitation (CPR) in Europe. *Resuscitation.* 1994; 28: S3.
5. Sitzwohl C, Sterz F, **Holzer M**, Kürkciyan I, Laggner AN. Correlation of serum magnesium (Mg⁺⁺), potassium (K⁺) and calcium (Ca⁺⁺) with defibrillation after cardiac arrest. *Resuscitation.* 1994; 28: S8,
6. Hellwagner K, Sterz F, Müllner M, Kürkciyan I, Domanovits H, **Holzer M**, Sitzwohl C, Laggner AN. A hypertensive bout early after restoration of spontaneous circulation does not correlate with neurologic outcome after cardiac arrest. *Resuscitation* 1994; 28: S15.
7. Zeiner A, Muellner M, Frossard M, Janata K, Behringer W, **Holzer M**, Sterz F, Laggner AN. Mild therapeutic hypothermia to improve neurologic outcome after cardiac arrest - a pilot study. *Circulation.* 1996; 94(8): I-9 - 10 (0054).

8. Behringer W, Schörkhuber W, **Holzer M**, Domanovits H, Sterz F, Laggner AN. Kardiopulmonaler Bypass und Antidot bei therapie refraktärem Herzkreislaufstillstand nach Digoxinintoxikation. Ein Fallbericht. *Wiener klinische Wochenschrift*. 1997; 109(S1): 53 (P2).
9. Schörkhuber W, Spitzauer S, Behringer W, **Holzer M**, Sterz F, Schreiber W, Röggl M, Laggner AN. Neuronen-spezifische Enolase (NSE) als prognostischer Parameter für das Ausmaß des hypoxischen Hirnschadens nach kardiopulmonaler Reanimation - vorläufige Ergebnisse. *Wiener klinische Wochenschrift*. 1997; 109(S1): 56 (P10).
10. Schoerhuber W, Spitzauer S, Behringer W, Kittler H, **Holzer M**, Sterz F, Laggner AN. Serum-neuron specific enolase and neurologic outcome in cardiac arrest patients: preliminary results. *Circulation*. 1997; 96 (8), Suppl: I-365.
11. Behringer W, Sterz F, Domanovits H, Schoerhuber W, **Holzer M**, Foedinger M, Laggner AN. Percutaneous cardiopulmonary bypass for therapy defibrillation resistant ventricular fibrillation cardiac arrest from digoxin overdose. *Int Care Med*. 1997; 23, Suppl.1: 103.
12. Schoerhuber W, Behringer W, **Holzer M**, Stuehlinger HG, Sterz F, Laggner AN. Temperature within 2 hours after human cardiac arrest and neurologic outcome. *Eur-Heart-J* 1997; 18(Suppl.): 548(P3082).
13. **Holzer M**, Sterz F, Behringer W, Weinmar D. Successful resuscitation of a verapamil intoxicated patient with percutaneous cardiopulmonary bypass. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S26 (P-62).
14. **Holzer M**, Behringer W, Sterz F, Oschatz E, Kofler J, Kittler H, Laggner AN. Higher cerebral blood flow with endothelin-1 as compared to epinephrine during advanced cardiac life support in pigs. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S13 (P-9).
15. **Holzer M**, Behringer W, Sterz F, Oschatz E, Kofler J, Kittler H, Laggner AN. Dose dependent increase of cerebral blood flow with Endothelin-1 during advanced cardiac life support in pigs. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S12 (P-8).
16. Schoerhuber W, Kittler H., Behringer W., Spitzauer S., **Holzer M.**, Sterz F., Laggner A.N. Serum-neuron specific enolase and neurologic outcome in cardiac arrest patients. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S11 (P-4).
17. Domanovits H., Paulis M., Muellner M., Stuehlinger H.G., **Holzer M.**, Gamper G., Sterz F., Laggner A.N. Management of sustained ventricular tachycardia in the emergency department. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S26 (P-61).
18. Domanovits H., Kloesch C., Muellner M., Janata K., **Holzer M.**, Nikfardjam M., Paulis M., Behringer W., Sterz F. Renal failure after successful CPR. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S39 (O-2).

19. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Laggner A.N.
Repeated doses of epinephrine do not show an effect on coronary perfusion pressure during advanced cardiac life support in pigs. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S41 (O-10).
20. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Kittler H., Domanovits H., Laggner A.N. Effects of different doses of endothelin-1 on median fibrillation frequency and defibrillation success during advanced cardiac life support in pigs. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S41 (O-11).
21. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Kittler H., Domanovits H., Laggner A.N. Effects of endothelin-1 and epinephrine on median fibrillation frequency and defibrillation success during advanced cardiac life support in pigs. Resuscitation 98 Copenhagen, *Resuscitation* 1998; 37(2) Suppl.: S41 (O-12).
22. **Holzer M.**, Behringer W, Sterz F, Oschatz E, Kofler J, Laggner AN. Higher cerebral blood flow with endothelin-1 as compared to epinephrine during advanced cardiac life support in pigs. XXth Congress of the European Society of Cardiology. *Eur-Heart-J* 1998; 19 Suppl.: P1170.
23. **Holzer M.**, Behringer W, Sterz F, Oschatz E, Kofler J, Kittler H, Laggner AN. Dose dependent increase of cerebral blood flow with Endothelin-1 during advanced cardiac life support in pigs. XXth Congress of the European Society of Cardiology. *Eur-Heart-J* 1998; 19 Suppl.: P3712.
24. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Laggner A.N.
Repeated doses of epinephrine do not show an effect on coronary perfusion pressure during advanced cardiac life support in pigs. XXth Congress of the European Society of Cardiology. *Eur-Heart-J* 1998; 19 Suppl.: P1168.
25. Gendo A., Kramer L., Sterz F., **Holzer M.**, Zauner C., Madl C. Serial recording of sensory evoked potentials in comatose cardiac arrest survivors. 11th Annual Congress, European Society of Intensive Care Medicine, *Intensive Care Medicine* 1998; 24:S44.
26. **Holzer M.**, Behringer W., Sterz F., Oschatz E., Kofler J., Kittler H., Laggner A.N. Higher cerebral blood flow with Endothelin-1 as compared to epinephrine during advanced cardiac life support in pigs. SCCM 28th Educational & Scientific Symposium. *Critical Care Medicine* 1999;27:A44.
27. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Laggner A.N., Safar P. Repeated doses of epinephrine do not show an effect on coronary perfusion pressure during advanced cardiac life support in pigs. SCCM 28th Educational & Scientific Symposium. *Critical Care Medicine* 1999; 27:A45.

28. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Laggner A.N. Endothelin-1 (ET) during CPR-advanced life support in pigs. Effects of different doses on VF median frequency. SCCM 28th Educational & Scientific Symposium. *Critical Care Medicine* 1999; 27:A105.
29. Behringer W., **Holzer M.**, Sterz F., Oschatz E., Kofler J., Laggner A.N., Safar P. Endothelin-1 (ET) or epinephrine during CPR-advanced life support in pigs. Effects on VF median frequency. SCCM 28th Educational & Scientific Symposium. *Critical Care Medicine* 1999; 27:A107.
30. **Holzer M.**, Behringer W., Sterz F., Oschatz E., Kofler J., Kittler H., Laggner A.N. Dose dependent increase of cerebral blood flow with Endothelin-1 during advanced cardiac life support in pigs. SCCM 28th Educational & Scientific Symposium. *Critical Care Medicine* 1999; 27:A108.
31. Gendo A., Kramer L., **Holzer M.**, Sterz F., Zauner C., Kranz A., Madl Ch. Cerebral monitoring with sensory evoked potentials in comatose patients after cardiopulmonary resuscitation. SCCM 28th Educational & Scientific Symposium. *Critical Care Medicine* 1999; 27:A112.
32. **Holzer M.**, Behringer W, Sterz F, Oschatz E, Kofler J, Eisenburger P, Laggner AN. Verwendung neuartiger fluoreszenz-markierter Mikrosphären zur regionalen Blutflußmessung bei Reanimationsstudien. Wiener Intensivmedizinische Tage 1999. *Wien-Klin-Wochenschr* 1999;111 Suppl.: 17.
33. Gendo A., Kramer L., Sterz F., **Holzer M.**, Zauner C., Kranz A., Madl Chr. Time-dependent outcome prediction after cardiopulmonary resuscitation based on sensory evoked potentials. 31. Gemeinsame Jahrestagung der Deutschen Gesellschaft für Internistische Intensivmedizin und Notfallmedizin und der Österreichischen Gesellschaft für Allgemeine und Internistische Intensivmedizin. *Intensivmedizin und Notfallmedizin* 1999in press (P32).
34. **Holzer M.**, Behringer W, Sterz F, Oschatz E, Kofler J, Eisenburger P, Laggner AN. Ventricular fibrillation amplitude but not median frequency is predictive of return of spontaneous circulation after prolonged cardiac arrest in pigs. Fighting sudden cardiac death - 13th European colloquium on quantitative electrocardiology and vectorcardiography, Paris 1999; *Proceedings of the 13th European colloquium on quantitative electrocardiology and vectorcardiography.*
35. **Holzer M.**, Behringer W, Sterz F, Oschatz E, Kofler J, Eisenburger P, Laggner AN. Fluorescent microspheres for determining blood flow in a pig model of cardiac arrest. 4th International conference on fluorescent microspheres methodes, Amsterdam 1999; *Proceedings of the 4th International conference on fluorescent microspheres methodes.*
36. Yu D, Small M, Harrison RG, Robertson C, Clegg G, **Holzer M.**, Sterz F. Complexity measurements for analysis and diagnosis of early ventricular fibrillation. *Computers in Cardiology* 1999; 26:17-20.

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