

Aorta ascendens **TDK TOPICS**  
**Semmelweis University**  
**Heart Center - Cardiology Department**  
**(2010/2011)**

1. Evaluation of the mechanisms and non-pharmacological treatment of arrhythmias.  
(Prof. Béla Merkely M.D., Ph.D., D.Sc.)
2. Resynchronisation therapy of chronic heart failure – actual questions.  
(Prof. Béla Merkely M.D., Ph.D., D.Sc.; Valentina Kutuyifa M.D.)
3. Sudden cardiac death and sport.  
(Prof. Béla Merkely M.D., Ph.D., D.Sc.; György Bárczi M.D., assistant lecturer)
4. The role of tissue Doppler echocardiography in cardiac resynchronisation therapy.  
(Prof. Béla Merkely M.D., Ph.D., D.Sc.; Valentina Kutuyifa M.D.)
5. Role of electrocardiography in non-invasive cardiac screening of athletes.  
(Béla Merkely M.D., Ph.D., D.Sc.; Orsolya Kiss M.D., Ph.D.)
6. Possible cardiac indications of MRI examination.  
(Prof. Béla Merkely M.D., Ph.D., D.Sc.; Hajnalka Vágó M.D., Ph.D.)
7. Differentiation of physiological and pathological left ventricular hypertrophy and remodelling in dynamic and static sports in competitive sportmen.  
(Astrid Apor M.D., assistant lecturer; Valentina Kutuyifa M.D.)
8. Investigation of myocardial deformation in patients with acute coronary syndrome.  
(Astrid Apor M.D., assistant lecturer; Andrea Nagy M.D.)
9. Modern treatment of acute coronary syndrome.  
(Dávid Becker M.D., Ph.D., senior lecturer)
10. Factors influencing mortality of patients with acute coronary syndrome.  
(Dávid Becker M.D., Ph.D., senior lecturer)
11. Etiology of restenosis and reocclusion after catheter-interventions.  
(Dávid Becker M.D., Ph.D., senior lecturer)
12. Ablation treatment of cardiac arrhythmias: new indications, new techniques.  
(László Gellér M.D., Ph.D., senior lecturer)
13. Invasive catheter techniques for improvement of efficacy of resynchronisation therapy.  
(László Gellér M.D., Ph.D., senior lecturer)
14. Invasive radiological methods for treatment of complications of non-pharmacological cardiological interventions.  
(László Gellér M.D., Ph.D., senior lecturer)
15. Endovascular treatment of aortic aneurysms.  
(Prof. Kálmán Hüttl M.D., Ph.D.)
16. Treatment of restenosis of internal carotid artery.

(Prof. Kálmán Hüttl M.D., Ph.D.); Balázs Nemes M.D., senior lecturer)

17. Complications of the interventional treatment of stenotic aortic branches.  
(Prof. Kálmán Hüttl M.D., Ph.D.); Balázs Nemes M.D., senior lecturer)
18. Haemodynamic changes after carotid artery stenting.  
(Prof. Kálmán Hüttl M.D., Ph.D.)
19. Interventional treatment of critical ischemia in lower limb.  
(Prof. Kálmán Hüttl M.D., Ph.D.; Balázs Nemes M.D., senior lecturer)
20. Significance of venous insufficiency in central nervous system.  
(Prof. Kálmán Hüttl M.D., Ph.D.; Nándor Pintér M.D.)
21. Endovascular treatment of vascular complications at cardiological interventions.  
(Prof. Kálmán Hüttl M.D., Ph.D.; László Gellér M.D., Ph.D., senior lecturer)
22. Treatment of in-stent restenosis with drug-eluting balloon.  
(Zoltán Jambrik M.D., assistant lecturer)
23. Investigation of extravascular pulmonary oedema with non-invasive methods.  
(Zoltán Jambrik M.D., assistant lecturer)
24. Interactions of cardioactive agents: investigations on isolated, perfused hearts.  
(Violetta Kékesi Ph.D., associate professor)
25. Endogenous regulatory agents in the human pericardium.  
(Violetta Kékesi Ph.D., associate professor)
26. Effects of peptidergic endogenous regulatory agents: investigations on isolated coronary resistance vessels.  
(Violetta Kékesi Ph.D., associate professor)
27. Investigation of mechanisms of coronary effects of acetylcholine on isolated heart and vessels.  
(Violetta Kékesi Ph.D., associate professor)
28. Options for improvement of myocardial contractile function in different clinical conditions.  
(Violetta Kékesi Ph.D., associate professor)
29. Effect of Ca ionophore agents in vascular smooth muscle cells: role of intracellular Ca compartments.  
(Violetta Kékesi Ph.D., associate professor)
30. In vivo animal models in investigation of ischemic stroke.  
(Prof. Zoltán Nagy M.D., Ph.D., D.Sc.)
31. Role of MMP-9 in evolution of reperfusional cerebral damage.  
(Prof. Zoltán Nagy M.D., Ph.D., D.Sc.)
32. NOGO system and cerebral plasticity.  
(Prof. Zoltán Nagy M.D., Ph.D., D.Sc.)

33. Interventional treatment of subclavian artery stenosis.  
(Balázs Nemes M.D., senior lecturer)
34. Stent-implantation in superior caval vein syndrome.  
(Balázs Nemes M.D., senior lecturer)
35. Diabetic cardiomyopathy – development of new treatment strategies.  
(Tamás Radovits M.D., Ph.D.)
36. Aging-associated cardiovascular dysfunction and nitro-oxidative stress.  
(Tamás Radovits M.D., Ph.D.)
37. Investigation of physiological left ventricular hypertrophy induced by endurance training in a rat model.  
(Tamás Radovits M.D., Ph.D.)
38. Investigation of novel cardioprotective therapies on animal models of ischemia/reperfusion.  
(Tamás Radovits M.D., Ph.D.)
39. New pharmacological treatment of bleeding during surgical heart interventions.  
(Tamás Radovits M.D., Ph.D.; Gábor Veres M.D., Ph.D.)
40. Effects of a new tissue-preserving solution, the Custodiol N during heart transplantation.  
(Tamás Radovits M.D., Ph.D.; Gábor Veres M.D., Ph.D.)
41. Inhibition of thrombocyte aggregation after acute coronary syndrome.  
(Judit Skopál Ph.D., scientific advisor)
42. Investigation of hypoxia/reoxygenation in PC-12 rat neuronal cell culture.  
(Judit Skopál Ph.D., scientific advisor; Sándor Nardai M.D.)
43. Investigation of neuroprotective effect of therapeutic hypothermia after resuscitation.  
(Judit Skopál Ph.D., scientific advisor; Endre Zima M.D., Ph.D., senior lecturer)
44. Examination of fibrinolytic attribute in immortalized human cerebral endothelial cells.  
(Judit Skopál Ph.D., scientific advisor)
45. Web-based work in the medical science.  
(Pál Soós M.D., Ph.D.)
46. Investigation of pathomechanism of thrombocyte aggregation.  
(Pál Soós M.D., Ph.D.; László Kóhidai M.D., Ph.D., associate professor)
47. Tissue engineering in the heart.  
(Pál Soós M.D., Ph.D.)
48. Investigation of cardiac endogenous function in ischemic model.  
(Pál Soós M.D., Ph.D.)
49. Genetic prognostic markers of myocardial ischaemia and infarction.  
(Zsolt Szelid M.D., Ph.D., assistant lecturer)

50. Genetic polymorphisms associated with the cardiovascular system in athletes.  
(Zsolt Szelid M.D., Ph.D., assistant lecturer)
51. Examination of inflammation processes after ablational treatment of arrhythmias.  
(Gábor Széplaki M.D., Ph.D.)
52. Role of inflammation processes in formation of sport heart.  
(Gábor Széplaki M.D., Ph.D.)
53. Role of inflammation in pathomechanism of heart failure.  
(Gábor Széplaki M.D., Ph.D.)
54. Role of inflammation in pathomechanism of atherosclerosis.  
(Gábor Széplaki M.D., Ph.D.)
55. MRI examination of heart.  
(Attila Tóth M.D., assistant lecturer, Hajnalka Vágó M.D., Ph.D.)
56. Cardiac examination of competitive sportmen.  
(Attila Tóth M.D., assistant lecturer, Hajnalka Vágó M.D., Ph.D.)
57. New method for characterization of heart muscle with cardiac MRI.  
(Attila Tóth M.D., assistant lecturer, Hajnalka Vágó M.D., Ph.D.)
58. Pathomechanism, diagnostic and treatment of acute heart failure and cardiogen shock.  
Comparative study on outcome of the effect of invasive haemodynamical examinations  
in heart failure patients.  
(Endre Zima M.D., Ph.D., senior lecturer)
59. Factors of the in- and out-hospital resuscitation. Investigation of intensive and invasive  
methods of treatment of succesfully resuscitated patients.  
(Endre Zima M.D., Ph.D., senior lecturer)
60. Investigation of cardio-renal syndrome and acute liver failure related to acute cardiac  
diseases: diagnosis, risk-stratification and treatment options.  
(Endre Zima M.D., Ph.D., senior lecturer)
61. Prevention, treatment options of contrast medium-induced nephropathy related to  
percutan coronary and peripheral vascular interventions.  
(Endre Zima M.D., Ph.D., senior lecturer)
62. Investigation of telecardiological monitoring options in pacemaker and ICD patients.  
(Endre Zima M.D., Ph.D., senior lecturer)
63. Periprocedural pharmacological treatment at elective and acute percutan coronary  
intervention and preoperative surgical preparation strategies.  
(Endre Zima M.D., Ph.D., senior lecturer)
64. Efficacy of inotropic agents in experimental ischaemia-reperfusion of the failing heart.  
(Endre Zima M.D., Ph.D., senior lecturer)
65. Stem cell transplantation in the clinical practice.  
(Prof. Péter Andréka M.D., Ph.D.)
66. Percutan interventional techniques.

(Prof. Péter Andréka M.D., Ph.D.)

67. Pregnancy and heart disease.  
(Olga Hajnalka Bálint M.D.)

68. Hybrid electric cardioversion.  
(József Borbola M.D., Ph.D.)

69. Modern pacemaker therapy. Survival and quality of life.  
(Prof. András Böhm M.D., Ph.D., D.Sc.)

70. Right heart function: cardiological and surgical aspects.  
(Prof. István Hartyánszky M.D., Ph.D.; Prof. Krisztina Kádár M.D., Ph.D.)

71. Analysis of outcome of the coronary transfer surgery.  
(Prof. István Hartyánszky M.D., Ph.D.; Prof. Krisztina Kádár M.D., Ph.D.)

72. Percutan coronary intervention in acute coronary syndrome.  
(István Hizoh M.D., Ph.D., honorary associate professor)

73. Investigation of factors influencing mortality of primer percutan coronary syndrome.  
(István Hizoh M.D., Ph.D., honorary associate professor)

74. Treatment of the acute heart failure.  
(Gabriella Hódi M.D.)

75. Long-time follow-up of patients with immunosuppression.  
(Gabriella Hódi M.D.)

76. Pathology and prognosis of ST-elevating myocardial infarctus on the base of „Pilóta”  
Infarct Register data.  
(Prof. András Jánosi M.D., Ph.D., D.Sc.)

77. Pathology and prognosis of non-ST-elevating myocardial infarctus on the base of  
„Pilóta” Infarct Register data.  
(Prof. András Jánosi M.D., Ph.D., D.Sc.)

78. Non-invasive diagnosis and follow-up of heart diseases in childhood and infancy.  
(Prof. Krisztina Kádár M.D., Ph.D.)

79. Long-term follow-up of the Kawasaki disease.  
(Prof. Krisztina Kádár M.D., Ph.D.)

80. Non-pharmacological treatment of atrial fibrillation: medium- and long-term results.  
(Attila Kardos M.D., Ph.D., senior lecturer)

81. Isolation of vena pulmonalis by cryoballoon in the treatment of paroxysmal atrial  
fibrillation.  
(Attila Kardos M.D., Ph.D., senior lecturer)

82. Congenital heart disease in adults.  
(Imre Kassai M.D., Ph.D.)

83. Application of the mechanical assist device in the treatment of heart failure.  
(Imre Kassai M.D., Ph.D.)
84. Activation and inhibition of thrombocytes in coronary atherothrombosis.  
(Róbert Gábor Kiss M.D., Ph.D., honorary associate professor)
85. Pacemaker-mediated cardiomyopathy.  
(László Környei M.D.)
86. Endothelial dysfunction: clinical significance and search modalities.  
(Attila Mohácsi M.D., Ph.D., honorary associate professor)
87. The role of genetic polymorphisms in the pathomechanism of atherosclerosis.  
(Attila Mohácsi M.D., Ph.D., honorary associate professor)
88. Modern treatment of heart failure.  
(Noémi Nyolcas M.D., Ph.D., senior lecturer)
89. Endothel function in coronary disease.  
(Prof. István Préda M.D., Ph.D., D.Sc.)
90. The diagnostic role of the CT investigations in cardiology.  
(Prof. István Préda M.D., Ph.D., D.Sc.)
91. The role of the psychosocial factors in the outcome of heart surgical interventions.  
(Andrea Székely M.D., Ph.D.)
92. Risk-evaluation after heart surgical interventions in childhood.  
(Andrea Székely M.D., Ph.D.)
93. Changes of quality of life in elderly patients after heart surgical interventions.  
(László Székely M.D., Ph.D.)
94. Minimal-invasive heart surgery.  
(László Székely M.D., Ph.D.)
95. Mitral valve reconstructions.  
(László Székely M.D., Ph.D.)
96. Treatment of tricuspidal valve insufficiency.  
(László Székely M.D., Ph.D.)
97. Surgical procedure for stentless aortic valves.  
(László Székely M.D., Ph.D.)
98. The role of 3D echocardiography in monitoring different interventions.  
(András Temesvári M.D., Ph.D.)
99. Long-term prognosis of pulmonal homograft surgery in adults.  
(András Temesvári M.D., Ph.D.)
100. Incidence, clinical course and characteristics of infective endocarditis of nosocomic origin.  
(Zsuzsa Wladika M.D., Ph.D.)