

Návrh tématu pro stipendijní místo prezenčního doktorského studia na rok 2018

I. interní kardiologická klinika, FN u sv. Anny v Brně

Téma dizertace: Diagnostika a léčba spontánních koronárních disekcí.

Spontánní disekce koronární tepny (SCAD) je poměrně vzácnou příčinou akutních koronárních symptomů. Jejím základním znakem je vznik falešného lumen koronární tepny, které vede k útlaku pravého lumen a tudíž ke vzniku akutní ischémie a akutního koronárního syndromu, o něco častěji bez elevace ST úseků. Nejčastěji postihuje mladé ženy, výskyt u mužů je výjimečný. Existují dva pravděpodobné mechanismy vzniku SCAD. První spočívá na principu, že dojde k trhlině intimy, krev se dostane do medie a vytvoří falešný lumen. V druhém případě prokrvácí medie, většinou z přítomných mikrotepének. Trhlina intimy se v tomto případě nenajde. Základní diagnostickou metodou SCAD je optická koherentní tomografie, kterou indikujeme na základě typické symptomatologie u mladých žen a koronarografického nálezu. V současnosti, není-li omezený průtok většinou tepnou, je léčba konzervativní.

Cíle práce:

1. vytvoření multicentrického registru SCAD
2. zjistit nejvýznamnější rizikové faktory SCAD
3. srovnat skupinu nemocných se SCAD léčenou konzervativně se skupinou intervenční
4. stanovit roční prognózu pacientek se SCAD

Publikační aktivita studenta:

1. review článků v zahraničním časopise v r. 2019
2. výsledky sledování SCAD v časopise s impakt faktorem v r. 2021
3. prezentace zkušeností se SCAD na českém a zahraničním kardiologickém kongresu

Informace o školiteli: MUDr. Ota Hlinomaz, CSc

CV a publikační aktivita viz příloha

úspěšní absolventi školitele: MUDr. Leoš Pleva PhD, MUDr. Martin Gřiva PhD, MUDr. Miroslav Homza PhD, MUDr. Dušan Kučera PhD

v Brně dne 5.4.2018



NAME:
Ota Hlinomaz

E-MAIL:
ota.hlinomaz@fnusa.cz

RESEARCHERID:
I-3906-2016

PROFESSIONAL EXPERIENCE

Activity/Occupation	Start – Ending Date	Field	Institution/Mentor
Principal Investigator	2016 – present	Interventional cardiology	International Clinical Research Center, St. Anne's University Hospital, Brno
Subprogram Director	2011 - 2016	Interventional cardiology	International Clinical Research Center, St. Anne's University Hospital, Brno
Deputy Head	2016 -	Dpt. of Cardiology	St. Anne's University Hospital, Brno
Consultant in Cardiology	2007 - 2017	Interventional cardiology	Bulgarian Cardiac Institute, Bulgaria
Head Physician	2002 - 2016	Coronary Care Unit	St. Anne's University Hospital, Brno
Interventional Cardiologist	1996 - present	Cardiology	St. Anne's University Hospital, Brno
Physician	1998 – 2000	Cardiology	2 nd Department of Internal Medicine, St. Anne's University Hospital, Brno

EDUCATION AND ACADEMIC QUALIFICATIONS

2000	CSc./Ph.D.	Masaryk University, Brno, Czech Republic
1986	MUDr./MD	Masaryk University, Brno, Czech Republic

PROFESSIONAL LICENSES, CERTIFICATIONS AND TRAINING

2009	Supervisor in invasive diagnostic cardiology, interventional cardiology
2001	Head physician of medical faculty – cardiology
2000	Licence in cardiology
1995	Licence in internal medicine
2000	Cardiology ILF Prague
1995	Internal medicine 2 st degree ILF Prague
1991	Internal medicine 1 st degree ILF Prague
	Specialization in cardiology (European specialization)
	Specilization in internal medicine (European specialization)

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

Board of Working group of Acute cardiology of Czech Society of Cardiology (2008-2012)
Board of Working group of Interventional cardiology of Czech Society of Cardiology (2004-2012)
Bulgarian Society of Interventional Cardiology
Czech Society of Internal Medicine

TEACHING





1994-1997, since 2002 Assistant professor, Faculty of Medicine, Masaryk University, Brno

FELLOWSHIPS AND AWARDS

1999	Scripps Clinic, La Jolla, USA
1999	Cornell University Medical Center, New York, USA
1990-1994	Hospital Charité, Berlin, Germany
1985	Hospital Sahlgrenska, Goteborg, Sweden

GRANTS AND OTHER PROFESSIONAL ACTIVITIES

2011 - 2015	Ministry of Health of the Czech Republic, Principal investigator Multivessel coronary disease diagnosed at time of primary PCI for STEMI: complete revascularization or conservative treatment. Prague 13 trial.
2011 - 2014	Principal investigator of cooperating center with Cerman Heart Center Prevention of Late Stent Thrombosis by an Interdisciplinary Global European effort –Pr. number 260309

PATENTS AND APPLIED RESULTS

1. Novel Ferromagnetic Bare Metal Stent Capable of Capturing and Retaining Endothelial Cells
2. New type of stent graft with rapid endothelialization

AFFILIATIONS

International Clinical Research Center, St. Anne's University Hospital Brno, Brno, Czech Republic
1st Internal Cardioangiological Department, St. Anne's University Hospital, Brno, Czech Republic
Faculty of Medicine, Masaryk University, Brno, Czech Republic

PEER-REVIEWED PUBLICATIONS

1. Adriaenssens T, Joner M, Godschalk T, Malik N, Alfonso F, Xhepa E, De Cock D, Komukai K, Tada T, Cuesta J, Sirbu V, Feldman LJ, Neumann FJ, Goodall AH, Heestermaans T, Buyschaert I, Hlinomaz O, Belmans A, Desmet W, Ten Berg JM, Gershlick AH, Massberg S, Kastrati A, Guagliumi G, Byrne R; PREvention of Late Stent Thrombosis by an Interdisciplinary Global European Effort (PRESTIGE) Investigators. Optical Coherence Tomography Findings in Patients with Coronary Stent Thrombosis: A Report of the PREvention of Late Stent Thrombosis by an Interdisciplinary Global European Effort (PRESTIGE) Consortium. *Circulation*. 2017 Jul 18. pii: CIRCULATIONAHA.117.026788. doi: 10.1161/CIRCULATIONAHA.117.026788.
2. Pleva L, Kukla P, Zapletalova J, Hlinomaz O. Efficacy of a seal-wing paclitaxel-eluting balloon catheters in the treatment of bare metal stent restenosis. *BMC Cardiovasc Disord*. 2017 Jun 26;17(1):168. doi:10.1186/s12872-017-0602-6.
3. Motovska Z, Hlinomaz O, Kala P; PRAGUE-18 Investigators. Response by Motovska et al to Letter Regarding Article, "Prasugrel Versus Ticagrelor in Patients With Acute Myocardial Infarction Treated With Primary Percutaneous Coronary Intervention: Multicenter Randomized PRAGUE-18 Study". *Circulation*. 2017 Apr 11;135(15):e887-e888. doi: 10.1161/CIRCULATIONAHA.117.027476.
4. Tefft BJ, Uthamaraj S, Harburn JJ, Hlinomaz O, Lerman A, Dragomir-Daescu D, Sandhu GS. Magnetizable stent-grafts enable endothelial cell capture. *J Magn Magn Mater*. 2017 Apr 1;427:100-104. doi: 10.1016/j.jmmm.2016.11.007. Epub 2016 Nov 4.
5. Uthamaraj S, Tefft BJ, Jana S, Hlinomaz O, Kalra M, Lerman A, Dragomir-Daescu D, Sandhu GS. Fabrication of Small Caliber Stent-grafts Using Electrospinning and Balloon Expandable Bare Metal Stents. *J Vis Exp*. 2016 Oct 26;(116). doi:10.3791/54731.
6. Pleva L, Kukla P, Zapletalová J, Hlinomaz O. Response by Pleva et al to Letter Regarding Article, "Comparison of the Efficacy of Paclitaxel-Eluting Balloon Catheters and Everolimus-Eluting Stents in the Treatment of Coronary In-Stent Restenosis: The Treatment of In-Stent Restenosis Study". *Circulation-Cardiovascular Interventions*. 2016.
7. Villablanca, P., Briceno, D., Massera, D., Hlinomaz, O., Lombardo, M., Bortnick, A., Menegus, M., Pyo, R., Garcia, M., Mookadam, F., Ramakrishna, H., Wiley, J., Faggioni, M., Dangas, G. Culprit-lesion only versus complete multivessel percutaneous intervention in ST-elevation myocardial infarction. *International Journal of Cardiology*. 2016.
8. Motovska, Z., Hlinomaz, O., Miklik, R., Hromadka, M., Varvarovsky, I., Dusek, J., Knot, J., Jarkovsky, J., Kala, P., Rokyta, R., Tousek, F., Kramáriková, P., Majtan, B., Simek, S., Branny, M., Mrozek, J., Cervinka, P., Ostransky, J., Widimsky, P. Prasugrel versus Ticagrelor in Patients with Acute Myocardial Infarction Treated with Primary Percutaneous Coronary Intervention. *Circulation*. 2016.
9. Pleva, L.; Kukla, P.; Kusnierova, P.; Zapletalova, J.; Hlinomaz, O., Comparison of the Efficacy of Paclitaxel-Eluting Balloon Catheters and Everolimus-Eluting Stents in the Treatment of Coronary In-Stent Restenosis The Treatment of In-Stent Restenosis Study. *Circulation-Cardiovascular Interventions* 2016, 9 (4).
10. Hlinomaz, O., Role of Plasma Neutrophil Gelatinase Associated Lipocalin as a New Biomarker. *Journal of Critical Care Medicine* 2016, 2 (1), 56-57.
11. Hlinomaz O, Groch L, Poloková K, Lehar F, Vekov T, Petkov R, Stojnev M, Gřiva M, Sitar J, Rezek M, Novák M, Seměnka J, Penkov N. Multivessel coronary disease diagnosed at the time of primary PCI for STEMI: complete revascularisation versus conservative strategy. Prague-13 trial. *Kardiol Rev Int Med* 2015; 17(3): 214–220
12. Uthamaraj, S.; Tefft, B. J.; Hlinomaz, O.; Sandhu, G. S.; Dragomir-Daescu, D., Ferromagnetic Bare Metal Stent for Endothelial Cell Capture and Retention. *Jove-Journal of Visualized Experiments* 2015, (103).
13. Uthamaraj, S.; Tefft, B. J.; Klabusay, M.; Hlinomaz, O.; Sandhu, G. S.; Dragomir-Daescu, D., Design and Validation of a Novel Ferromagnetic Bare Metal Stent Capable of Capturing and Retaining Endothelial Cells. *Annals of Biomedical Engineering* 2014, 42 (12), 2416-2424.
14. Podrouzkova, H.; Horvath, V.; Hlinomaz, O.; Bedan, J.; Bambuch, M.; Nemecek, P.; Orban, M., Embolus Entrapped in Patent Foramen Ovale: Impending Paradoxical Embolism. *Annals of Thoracic Surgery* 2014, 98 (6), E151-E152.
15. Machal, J.; Pavkova-Goldbergova, M.; Hlinomaz, O.; Groch, L.; Vasku, A., Patients With Chronic Three-Vessel Disease in a 15-Year Follow-Up Study Genetic and Non-Genetic Predictors of Survival. *Medicine* 2014, 93 (28).
16. Souckova, L.; Opatrilova, R.; Suk, P.; Cundrle, I., Jr.; Pavlik, M.; Zvonicek, V.; Hlinomaz, O.; Sramek, V., Impaired bioavailability and antiplatelet effect of





- high-dose clopidogrel in patients after cardiopulmonary resuscitation (CPR). *European Journal of Clinical Pharmacology* **2013**, 69 (3), 309-317.
17. Knot, J.; Kala, P.; Rokyta, R.; Stasek, J.; Kuzmanov, B.; Hlinomaz, O.; Belohlavek, J.; Rohac, F.; Petr, R.; Bilkova, D.; Djambazov, S.; Grigorov, M.; Widimsky, P., Comparison of outcomes in ST-segment depression and ST-segment elevation myocardial infarction patients treated with emergency PCI: data from a multicentre registry. *Cardiovascular Journal of Africa* **2012**, 23 (9), 495-500.
 18. Widimsky, P.; Rohac, F.; Stasek, J.; Kala, P.; Rokyta, R.; Kuzmanov, B.; Jakl, M.; Poloczek, M.; Kanovsky, J.; Bernat, I.; Hlinomaz, O.; Belohlavek, J.; Kral, A.; Mrazek, V.; Grigorov, V.; Djambazov, S.; Petr, R.; Knot, J.; Bilkova, D.; Fischerova, M.; Vondrak, K.; Maly, M.; Lorencova, A., Primary angioplasty in acute myocardial infarction with right bundle branch block: should new onset right bundle branch block be added to future guidelines as an indication for reperfusion therapy? *European Heart Journal* **2012**, 33 (1), 86-95.
 19. Machal, J.; Vasku, A.; Hlinomaz, O.; Linhartova, P.; Groch, L.; Vitovec, J., Apolipoprotein E polymorphism is associated with both number of diseased vessels and extent of coronary artery disease in Czech patients with CAD. *Biomedical Papers-Olomouc* **2012**, 156 (2), 151-158.
 20. Bienertova-Vasku, J.; Bienert, P.; Hlinomaz, O.; Vasku, A., Common polymorphism +45T/G in adiponectin gene as potential modulator of in-stent restenosis development. *International Journal of Cardiology* **2010**, 145 (2), 351-351.
 21. Bienertova-Vasku, J.; Swamy, S. G.; Bienert, P.; Hlinomaz, O., *ATRIAL NATRIURETIC PEPTIDE: IS ANP ASSOCIATED WITH RESTENOSIS AFTER CORONARY ARTERY STENTING?* 2010; Vol. 2, p 279-286.
 22. Griva, M.; Naplava, R.; Spendlikova, M.; Jarkovsky, J.; Hlinomaz, O.; Cihalik, C., POTENTIAL ROLE OF SELECTED BIOMARKERS FOR PREDICTING THE PRESENCE AND EXTENT OF CORONARY ARTERY DISEASE. *Biomedical Papers-Olomouc* **2010**, 154 (3), 219-225.
 23. Jirmak, R.; Widimsky, P.; Capek, J.; Hlinomaz, O.; Groch, L., Next Day Discharge After Successful Primary Angioplasty for Acute ST Elevation Myocardial Infarction An Open Randomized Study "Prague-5". *International Heart Journal* **2008**, 49 (6), 653-659.
 24. Panovsky, R.; Meluzin, J.; Janousek, S.; Mayer, J.; Kaminek, M.; Groch, L.; Prasek, J.; Stanicek, J.; Dusek, L.; Hlinomaz, O.; Kala, P.; Klabusay, M.; Koristek, Z.; Navratil, M., Cell therapy in patients with left ventricular dysfunction due to myocardial infarction. *Echocardiography-a Journal of Cardiovascular Ultrasound and Allied Techniques* **2008**, 25 (8), 888-897.
 25. Meluzin, J.; Janousek, S.; Mayer, J.; Groch, L.; Hornacek, I.; Hlinomaz, O.; Kala, P.; Panovsky, R.; Prasek, J.; Kaminek, M.; Stanicek, J.; Klabusay, M.; Koristek, Z.; Navratil, M.; Dusek, L.; Vinklarkova, J., Three-, 6-, and 12-month results of autologous transplantation of mononuclear bone marrow cells in patients with acute myocardial infarction. *International Journal of Cardiology* **2008**, 128 (2), 185-192.
 26. Bienertova-Vasku, J. A.; Vasku, O. H. A., Are common leptin promoter polymorphisms associated with restenosis after coronary stenting? *Heart and Vessels* **2007**, 22 (5), 310-315.
 27. Meluzin, J.; Mayer, J.; Groch, L.; Janousek, S.; Hornacek, I.; Hlinomaz, O.; Kala, P.; Panovsky, R.; Prasek, J.; Kaminek, M.; Stanicek, J.; Klabusay, M.; Koristek, Z.; Navratil, M.; Dusek, L.; Vinklarkova, J., Autologous transplantation of mononuclear bone marrow cells in patients with acute myocardial infarction: The effect of the dose of transplanted cells on myocardial function. *American Heart Journal* **2006**, 152 (5).
 28. Blaha, M.; Kukleta, M.; Hlinomaz, O.; Dungalova, E.; Spac, J.; Nemcova, H.; Dvorak, I., Role of psychosocial factors in the diagnosis of coronary heart disease in women. *Homeostasis in Health and Disease* **1996**, 37 (3), 129-130.

h-index	total citations	average IF	citations/years* *number of years since first publication
6	176	2.92	8.80

Web of Science 30.9.2016

OTHER WRITTEN CONTRIBUTIONS

Author of chapters at Cardiology books in Czech (5)
Author of chapters at Cardiology book in Bulgarian (1)

INVITED PRESENTATIONS

1. Hlinomaz O.: In stent restenosis. How to treat it? *Interventional Cardiology* 2017. 32nd Annual international symposium, Snowmass, Colorado, USA
2. Hlinomaz O.: Optical coherence tomography. The 17th National Conference of Cardiology 2017. Targu Mures, Romania
3. Hlinomaz O.: Multivessel coronary disease diagnose at time of primary PCI for STEMI. *Interventional Cardiology* 2016. 31st Annual international symposium, Snowmass, Colorado, USA
4. Hlinomaz O.: Supraflex stent. *Bulgarian interventional cardiology* 2016. Sofia, Bulgaria.
5. Hlinomaz O.: Optical coherence tomography in acute coronary syndromes. IMV-2016 conference. Orenburg, Russia
6. Hlinomaz O.: Mnohočetné postihnutí veľkých tepen u STEMI. XIX. setkání pracovní skupiny intervenční kardiologie 2016. Tatranská Lomnica, Slovakia.
7. Hlinomaz O.: Multivessel coronary disease and STEMI. How to treat it? The XVIth conference in cardiology 2016. Targu Mures, Romania
8. Hlinomaz O.: OCT in acute coronary syndromes. The XVIth conference in cardiology 2016. Targu Mures, Romania
9. Hlinomaz O.: MVD and STEMI. Be careful with nonculprit lesions. *New frontiers in interventional cardiology* 2016. Krakow, Poland
10. Hlinomaz O.: Direct comparison of P2Y12 inhibitors. *National congress of Belarussian society of cardiology* 2016. Minsk, Belarus
11. Hlinomaz O.: Optical coherence tomography - when we use it. *National congress of Belarussian society of cardiology* 2016. Minsk, Belarus
12. Hlinomaz O.: Our Biomime experience. *Complex interventional techniques* 2016. Vapi, India
13. Hlinomaz O.: Results of Prague-13 trial. 29th Annual International Symposium, Colorado, USA, March 6-12, 2016
14. Hlinomaz O.: Case with multivessel coronary disease. *New Frontiers in Interventional Cardiology*, Krakow, Poland, 25.-27. 11. 2015
15. *Interventional Cardiology 2015 30th Annual International Symposium ve Snowmass, Colorado, USA. Souhrn několika přednášek, ve dnech 22.2.- 7.3.2015*
16. Hlinomaz O.: STEMI and multivessel disease. *Interventional Cardiology* 2014, 29th Annual International Symposium, Colorado, USA, March 1-6, 2014
17. Hlinomaz O.: National primary PCI network. Czech Republic. 10. kongres Chorvatské kardiologické společnosti, Zagreb, Chorvatsko, 6.-9.11.2014
18. Hlinomaz O.: Treatment of STEMI in Czech Republic, Slovakia and Bulgaria. *Kongres intervenční kardiologie*, Targu Mures, Rumunsko, 17.-20.6.2014
19. Hlinomaz O.: Is radial aproach the best for stenting of left main in AMI patients? 2nd Left main summit, Krakow, 3.12.2014
20. Hlinomaz O.: Frakční průtoková rezerva. *Symposium pracovní skupiny intervenční kardiologie*. Praha, 9.4.2014
21. Hlinomaz O.: FFR-OCT guided PCI. *New frontiers in interventional cardiology*. 15th interventional cardiology workshop. Krakow, 3.-6.12.2014
22. Hlinomaz O.: Anticoagulation in acute coronary syndromes. 7th European interventional cardiology fellows course. Krakow, 3.-4.12.2014
23. Hlinomaz O.: Stressem vyvolaná KMP. *Kasuistiky a léčba*. Sjezd ČKS. 5.5.2014
24. Hlinomaz O.: Akutní infarkt myokardu. *Nemocniční fáze*. Sjezd ČKS. 4.5.2014
25. Hlinomaz O.: New imaging methods of coronary arteries. 20th annual meeting of the Association "Heart-Lungs". Varna, 30.-31.5.2014
26. Hlinomaz O.: Studie Prague 13. *České kardiologické dny*. 28.-29.11.2013, Praha





27. Hlinomaz O.: Femoral or radial access in primary PCI. 6th Interventional Cardiology Fellow Course. 27.11.2013, Krakow
28. Hlinomaz O.: Czech STEMI network. The 12th Conference of Cardiology. 21.6.2013, Targu-Mures, Rumunsko
29. Hlinomaz O.: Primary angioplasty – what is new? Symposium. 15.3.2013, Alappuzha, Indie
30. Hlinomaz O.: Jak jsme rozvíjeli intervenční program v Bulharsku? XVI. setkání PSIIK. 6.-8.6.2013, Poprad, Slovensko
31. Hlinomaz O.: Treatment of STEMI in patients with multivessel disease. Meeting of cardiovascular disease. 17.-19.4.2013, Bordeaux, Francie
32. Hlinomaz O.: Stent for life. Czech Republic – the first in-comer. Interventional Cardiology 2013. 24.-29.3.2013, Colorado, USA
33. Hlinomaz O.: Primary PCI for STEMI patients in Czech Republic. Health Care Forum. 5.9.2013, Krynica Zdroj, Polsko
34. Hlinomaz O.: New imaging methods of coronary arteries. Congress of Iranian cardiovascular society. Tehran, Iran
35. Hlinomaz O. Bulgarian miracle in treatment of ACS. Results of Czech-Bulgarian cooperation. Interventional Cardiology 2012, 27th Annual International Symposium, Colorado, USA
36. Hlinomaz O. Treatment of multivessel coronary artery disease diagnosed at the time of primary PCI for STEMI. 7th FRSA. Meeting of cardiovascular disease. 17.-19.4.2013, Bordeaux, Francie
37. Hlinomaz O. Late presenters with STEMI. How to treat them? 6th FRSA. Meeting of cardiovascular disease. 27.-30.11.2011, Cape Town, JAR, Croatia, June 15 – 17, 2006, “Srs2 protein and its multi-functional role in recombination/repair processes”

