

ALEX ALI SAYOUR

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Place of birth: Ajka, Hungary

Date of birth: 21. July 1994.

Studies

- 2012-** Semmelweis University-
Faculty of Medicine
Budapest, Hungary
- 2006-2012** Bródy Imre Secondary
Grammar School
Ajka, Hungary
- 2000-2006** Eötvös Lóránd Elementary
School
Ajka, Hungary

Language proficiency

- English: advanced (C1) complex
(Nº: 1407674)
- German: conversation level

Scientific activities

- 2017-2018** Ruprecht-Karls-Universität
Heidelberg,
Labor Herzchirurgie
- 2014-** Heart and Vascular Center,
Department of Cardiology

Academic Competitions

- 2016** Internal Medicine: 1st prize
- 2016** Pharmacology: 4th prize
- 2015** Cardiology: 3rd prize
- 2015** Pathology: 5th prize

Scholarships, memberships

- 2018** Stephen W. Kuffler Research Scholarship
- 2017/2018** Harry Jellinek Research Scholarship, Ruprecht-Karls-Universität Heidelberg, Germany
- 2017-** Hungarian Society of Cardiology, active member
Kerpel-Fronius Ödön Student Excellence Program, active member
- 2015-** Budapest Medical Students' Association, active member

Semmelweis University's Student's Scientific Association

Place: Heart and Vascular Center, Department of Cardiology Semmelweis University

Tutor: Tamás Radovits, M.D. Ph.D. associate professor

Theme: Cardiovascular diseases

Since: September 2014

- 2018** Semmelweis Univ. Student's Scientific Conference: **2nd prize**
Semmelweis Univ. Student's Scientific Conference: **1st prize**
Semmelweis Univ. Student's Scientific Conference: **1st prize**
Semmelweis International Students' Conference: **1st prize**
Semmelweis International Students' Conference: **1st prize**
Korányi Frigyes Scientific Forum: **1st prize**
Korányi Frigyes Scientific Forum: **3rd prize**
- 2017** Rectoral Competition Thesis (English): **1st prize**
Rectoral Competition Thesis (Hungarian): **1st prize**
National Student's Scientific Conference: **2nd prize**
National Student's Scientific Conference: **2nd prize**
National Student's Scientific Conference: **special award**
Award for first-author publication in an international scientific journal
Korányi Frigyes Scientific Forum: **1st prize**
Korányi Frigyes Scientific Forum: **2nd prize**
Semmelweis Univ. Student's Scientific Conference: **1st prize**
Semmelweis Univ. Student's Scientific Conference: **1st prize**
Semmelweis International Students' Conference: **1st prize**
HMAA Balatonfüred 2017: **section winner**
- 2016** Semmelweis Univ. Student's Scientific Conference: **1st prize**
Semmelweis Univ. Student's Scientific Conference: **1st prize**
Rectoral Competition Thesis (Hungarian): **2nd prize**
- 2014** **Certificate:** Experimental animals - animal experiments "A" level
(Nº: 009./2014) + further training programme (2016)

Publications

Impairment of the Akt pathway in transplanted Type 1 diabetic hearts is associated with post-transplant graft injury.

Korkmaz-Icöz S, Li S, Loganathan S, Radovits T, Ruppert M, Brlecic P, **Sayour AA**, Veres G, Fleming T, Brune M, Most P, Karck M, Szabó G.

Interact Cardiovasc Thorac Surg. 2018 Jun 14. doi: 10.1093/icvts/ivy188

Pressure-volume analysis reveals characteristic sex-related differences in cardiac function in a rat model of aortic banding-induced myocardial hypertrophy.

Ruppert M, Korkmaz-Icöz S, Loganathan S, Jiang W, Lehmann LH, Oláh A, **Sayour AA**, Barta BA, Merkely B, Karck M, Radovits T, Szabó G.

Am J Physiol Heart Circ Physiol. 2018 May 25. doi: 10.1152/ajpheart.00202.2018.

Targeting Phosphodiesterase-5 by Vardenafil Improves Vascular Graft Function.

Veres G, Hagenhoff M, Schmidt H, Radovits T, Loganathan S, Bai Y, Korkmaz-Icöz S, Brlecic P, **Sayour AA**, Karck M, Szabó G.

Eur J Vasc Endovasc Surg. 2018 May 1. doi: 10.1016/j.ejvs.2018.03.025.

Routine aortic valve replacement followed by a myriad of complications: role of 3D printing in a difficult cardiac surgical case.

Benke K, Barabás JI, Daróczy L, **Sayour AA**, Szilveszter B, Pólos M, Lux Á, Székely A, Radovits T, Hartyánszky I, Merkely B, Szabolcs Z.

J Thorac Dis. 2017 Nov;9(11):E1021-E1024. doi: 10.21037/jtd.2017.10.77.

Pharmacological preconditioning with gemfibrozil preserves cardiac function after heart transplantation.

Benke K, Mátyás C, **Sayour AA**, Oláh A, Németh BT, Ruppert M, Szabó G, Kökény G, Horváth EM, Hartyánszky I, Szabolcs Z, Merkely B, Radovits T.

Sci Rep. 2017 Oct 27;7(1):14232. doi: 10.1038/s41598-017-14587-3.

The effects of acute and elective cardiac surgery on the anxiety traits of patients with Marfan syndrome.

Benke K, Ágg B, Pólos M, **Sayour AA**, Radovits T, Bartha E, Nagy P, Rákóczi B, Koller Á, Szokolai V, Hedberg J, Merkely B, Nagy ZB, Szabolcs Z.

BMC Psychiatry. 2017 Jul 17;17(1):253. doi: 10.1186/s12888-017-1417-9.

Complete Reversion of Cardiac Functional Adaptation Induced by Exercise Training.

Oláh A, Kellermayer D, Mátyás C, Németh BT, Lux Á, Szabó L, Török M, Ruppert M, Meltzer A, **Sayour AA**, Benke K, Hartyánszky I, Merkely B, Radovits T.

Med Sci Sports Exerc. 2017 Mar;49(3):420-429. doi: 10.1249/MSS.0000000000001127.

Heterotopic Abdominal Rat Heart Transplantation as a Model to Investigate Volume Dependency of Myocardial Remodeling.

Benke K*, **Sayour AA***, Mátyás C, Ágg B, Németh BT, Oláh A, Ruppert M, Hartyánszky I, Szabolcs Z, Radovits T, Merkely B, Szabó G.

Transplantation. 2017 Mar;101(3):498-505. doi: 10.1097/TP.0000000000001585.

*Equally contributed.

Physiological and pathological left ventricular hypertrophy of comparable degree is associated with characteristic differences of in vivo hemodynamics.

Oláh A, Németh BT, Mátyás C, Hidi L, Lux Á, Ruppert M, Kellermayer D, **Sayour AA**, Szabó L, Török M, Meltzer A, Gellér L, Merkely B, Radovits T.

Am J Physiol Heart Circ Physiol. 2016 Mar 1;310(5):H587-97. doi: 10.1152/ajpheart.00588.2015.

A hasonló fokú fiziológiás és patológiás balkamra-hipertrófia különböző in vivo hemodinamikai következményekhez vezet.

Oláh Attila*, **Sayour Alex Ali***, Németh Balázs Tamás, Mátyás Csaba, Hidi László, Lux Árpád, Ruppert Mihály, Kellermayer Dalma, Szabó Lilla, Török Marianna, Meltzer Anna, Gellér László, Merkely Béla, Radovits Tamás.

Cardiologia Hungarica 2018, 48: 20-224

*Equally contributed.

Az 1-es és 2-es típusú diabéteszes kardiális diszfunkció hátterében álló eltérő miokardiális szövettani és molekuláris jellegzetességek.

Mátyás Csaba*, **Sayour Alex Ali***, Korkmaz-Icöz Sevil, Oláh Attila, Németh Balázs Tamás, Páli Szabolcs, Hirschberg Kristóf, Zubarevich Alina, Gwanmesia Patricia Neh, Li Shiliang, Loganathan Sivakkanan, Barnucz Enikő, Merkely Béla, Szabó Gábor, Radovits Tamás.

Cardiologia Hungarica 2017, 47: 33-227

*Equally contributed.

Génpolimorfizmusok, mint rizikófaktorok a Marfan-szindróma kardiovaszkuláris manifesztációjának előrejelzésében.

Benke Kálmán¹*, **Sayour Alex Ali***, Ágg Bence, Radovits Tamás, Szilveszter Bálint, Odler Balázs, Németh Balázs Tamás, Pólos Miklós, Oláh Attila, Mátyás Csaba, Ruppert Mihály, Hartyánszky István, Maurovich-Horvat Pál, Merkely Béla, Szabolcs Zoltán.

Cardiologia Hungarica 2016, 46: 76-81

*Equally contributed.

Scientific interests

With the guidance of Tamás Radovits M.D. Ph.D., our research group investigates the pathophysiological and molecular biological background of athletic heart (physiological hypertrophy), as well as of cardiovascular diseases in small animal models. Uniquely in Hungary, we are capable of characterizing the myocardial left ventricular function with the gold standard pressure-volume conductance catheter system. Using the technique, we have previously reported a detailed analysis regarding the functional differences between physiological and pathological myocardial hypertrophy, as well as a functional reversion of the athletic heart following cessation of high-intensity exercise. Furthermore, we have characterized sex-related differences of left ventricular function between male and female littermates with a comparable chronic afterload elevation.

Our research group investigates the pathophysiological background and the functional consequences of myocardial infarction (ischemia-reperfusion injury), and possible pharmacological interventions to prevent it. We have previously reported that activation of the nitric oxide pathway was cardioprotective in global myocardial ischemia-reperfusion injury. My research focuses on the functional characterization of myocardial infarction, and on elucidation of novel molecular mechanisms of cardioprotective pharmacotherapies. Currently, I am investigating the possible cardioprotective side effect certain non-cardiovascular (e.g. antidiabetic) drugs that are widely used and effective. Accordingly, our studies could provide a basis for potentially new indications for medications that are already widely and safely applied in the clinical practice, besides giving possible explanations with respect to the molecular background of cardioprotection which has been observed as a side effect in certain clinical trials with these drugs.