

SZABOLCS VÁRBÍRÓ



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RESEARCH AREA

Our work group studied cardiovascular effects of female sexualsteroids in different animal models: its protective role in gender studies and in gender related cardiovascular sport adaptation studies. In pathophysiological models: cardiovascular adaptation in hypertension, menopause and polycystic ovary syndrome. In clinical studies we examine the connections of cardiovascular diseases with previous deliveries, spontaneous abortions - and its potential genetic and psychological background. During our experiments we use in vivo and in vitro observation methods: eg. treatment of vigil and anaesthetized animals - different surgical methods of experimental animals - isolation of vessels from different regions and vascular beds, the biomechanical and pharmacological reactivity of isolated vessels and also LAD network analysis with vascular physiology methods and immunohistochemical analysis of histological sections.

TECHNIQUES AVAILABLE IN THE LAB

Methods available: mapping, isolated vessels: rings and segments' studies with wire and pressure myography. Immunohistochemistry. Other methods: clinical database analysis, statistics.

SELECTED PUBLICATIONS

Várbíró, S., Takács, I., Túű, L., Nas, K., Sziva, R.E., Hetthéssy, J.R., Török, M. (2022) Effects of Vitamin D on Fertility, Pregnancy and Polycystic Ovary Syndrome-A Review. **Nutrients** **14**: 1649.

Sipos, M., Gerszi, D., Dalloul, H., Bányai, B., Sziva, R.E., Kollarics, R., Magyar, P., Török, M., Ács, N., Szekeres, M., Nádas, G.L., Hadjadj, L., Horváth, E.M., **Várbíró, S.** (2021) Vitamin D Deficiency and Gender Alter Vasoconstrictor and Vasodilator Reactivity in Rat Carotid Artery. **Int J Mol Sci** **22**: 8029.

Merkely, P., Bakos, M., Bányai, B., Monori-Kiss, A., Horváth, E.M., Bognár, J., Benkő, R., Oláh, A., Radovits, T., Merkely, B., Ács, N., Nádas, G.L., Török, M., **Várbíró, S.** (2021) Sex Differences in Exercise-Training-Related Functional and Morphological Adaptation of Rat Gracilis Muscle Arterioles. **Front Physiol** **12**: 685664.

Török, M., Merkely, P., Monori-Kiss, A., Horváth, E.M., Sziva, R.E., Péterffy, B., Jósai, A., Sayour, A.A., Oláh, A., Radovits, T., Merkely, B., Ács, N., Nádas, G.L., **Várbíró, S.** (2021) Network analysis of the left anterior descending coronary arteries in swim-trained rats by an in situ video microscopic technique. **Biol Sex Differ** **12**: 37.

Sziva, R.E., Fontányi, Z., Pál, É., Hadjadj, L., Monori-Kiss, A., Horváth, E.M., Benkő, R., Magyar, A., Heinzlmann, A., Benyó, Z., Nádas, G.L., **Várbíró, S.** (2020) Vitamin D Deficiency Induces Elevated Oxidative and Biomechanical Damage in Coronary Arterioles in Male Rats. **Antioxidants (Basel)** **9**: 997.