

**ASSESSMENT**  
**of the international recognition of the candidate for appointment as a professor**

according to part III point 6 of the Rector's Decision no. 1/2021, which regulates the procedure for obtaining scientific-pedagogical titles and artistic-pedagogical titles Associate Professor and Professor at Pavel Jozef Šafárik University in Košice and Art. 7 pt. 4 (a) b) Standards for the habilitation and inauguration procedure of the Slovak Accreditation Agency for Higher Education dated 2.7.2020:

**I. Identification of the candidate for appointment as a professor**

Name, surname, titles: Silvia Toporcerova, MD, PhD., EMBA, assoc. prof.,  
Date of birth: 20.09.1976  
Workplace: Pavol Jozef Šafárik University in Košice, Faculty of Medicine  
Workplace address: Trieda SNP c. 1, 040 11 Košice, Slovakia  
Position: Associate Professor at the Department of Gynaecology and Obstetrics  
  
ORCID ID / 0000-0003-3562-7703  
  
Area of habilitation proceedings and inaugural proceedings: Gynaecology and obstetrics

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Output identification 1:

An international patented technology was created from the analyzes described above: WO2021177904, PCT/SK2021/050004 A4, Non-invasive successfulness test of in vitro fertilization process, Authors: Rabajdová, M., Slabý, O., Šoltýs, K., Mareková, M., Toporcerová, S.

Output identification 2:

„Small Non-Coding RNAs as New Biomarkers to Evaluate the Quality of the Embryo in the IVF Process“ Authors: Toporcerová, S., Špaková, I., Šoltýs, K., Klepcová, Z., Kl'oc, M., Bohošová, J., Trachtová, K., Peterová, L., Mičková, H., Urdzík, P., Mareková, M., Slabý, O., Rabajdová, M. In: Biomolecules, vol. 12, 1687, 2022, (<https://doi.org/10.3390/biom12111687>), IF: 5,88, Q2.

Output identification 3:

„An In Vivo Model of Estrogen Supplementation Concerning the Expression of Ca<sup>2+</sup>-Dependent Exchangers and Mortality, Vitality and Survival After Myocardial Infarction in Ovariectomized Rats.“ Authors: Toporcer, T., Grendel, T., Špaková, I., Blichárová, A., Verbóová, L., Benetinová, Z., Čížmárová, B., Rabajdová, M., Toporcerová, S. In: 2024, 11(11):352. (<https://www.mdpi.com/2308-3425/11/11/352>), IF: 2,4, Q2.

#### Output identification 4:

„Embryo secretome in predicting embryo quality and IVF treatment outcome.“ Authors: Toporcerová, S., Badovská, Z., Kriváková, E., Mikulová, V., Mareková, M., Altmäe, S., Rabajdová, M. In: Repromed Biomed Online, 2025, 51(1):104825. ([https://www.rbmojournal.com/article/S1472-6483\(25\)00032-X/fulltext](https://www.rbmojournal.com/article/S1472-6483(25)00032-X/fulltext)), IF: 3,7, Q1.

#### Output identification 5:

„New approaches in the analysis of spent embryo culture media in the IVF process.“ Authors: Badovská, Z., Dubayová, K., Smolko, L., Toporcerová, S., Lukáčová, I., Šeršeň, D., Mareková, M., Rabajdová, M. In: Sci Rep., vol. 11, 19086, 2021, (Arch Gynecol Obstet., 2025 Apr 28 doi: 10.1007/s00404-025-08017-3.)

#### Output identification 6:

„Concentration of trace elements in human semen and relation to spermatozoa quality.“ Authors: Slivkova, J., Popelkova, M., Massanyi, P., Toporcerova, S., Stawarz, R., Formicki, G., Lukac, N., Putala, A., Guzik, M. In: Nucleic Acids Res., vol. 19, 6676-92, 2016, (J Environ Sci Health A Tox Hazard Subst Environ Eng., 2009, 44(4):370-375. (<https://pubmed.ncbi.nlm.nih.gov/19184704/>), IF: 1,363, Q3

## II. Identification of the assessor - foreign expert

Name, surname, titles: Zsolt Kopa MD., PhD, MSc.

Date of birth: 11.02.1965.

Workplace:

Andrology Centre,  
Dept. of Urology,  
Semmelweis University, Budapest, Hungary

Workplace address:

Korányi S. u. 2., 1085, Budapest

Position:

Associate Professor  
European Academy of Andrology Centre Director

Scientific focus / Andrology

Research area:

Male infertility, andrological microsurgery, sexual medicine, hypogonadism, aging males

ORCID ID / 0000-0001-5670-8647

Number of outputs in WoS:

201

Number of citations in WoS (without self - citations): 11.02.2025.

1516

H index in WoS: 17

g index 40

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### III. Assessment of the applicant's international recognition

#### 1. ***Assess the international context of the applicant's published publications:***

- X The applicant's publication outputs are important in an international context
- ☐ The applicant's publication outputs are not important in an international context

#### 2. ***Assess the applicant's participation in foreign conferences and congresses in the field of his / her scientific and pedagogical activities:***

- X The applicant participates in foreign conferences and congresses in the field of his / her scientific and pedagogical activities
- ☐ The applicant does not participate in foreign conferences and congresses in the field of his / her scientific and pedagogical activities
- ☐ I do not have relevant information

#### 3. ***Assess the citation response of the candidate's work in international journals:***

- X Applicant's works are frequently cited in international journals indexed in WoS
- ☐ Applicant's works are not frequently cited in international journals indexed in WoS

#### ***Final assessment:***

- X the candidate meets the requirements to work as a professor in an international context
- ☐ the candidate does not meet the requirements to work as a professor in an international context

#### ***Brief rationale:***

Place: Budapest

Date: 20.10.2025

Assessor 's signature: