Rome, 9/05/2018

ISSLS Fellowship Committee

RE: Report on ISSLS Clinical Travelling Fellowship 2017 by Gianluca Vadalà

Dear Committee members,

I am writing to report my **ISSLS Clinical Travelling Fellowship 2017.**

The fellowship was from October 24th 2017 to November 8th 2017 traveling from Seoul, South Korea, to Kanagawa and Tokyo, Japan.

October 25th I visited the Guro Hospital, Department of Neurosurgery, University of Korea, directed by Joo Han Lee (ISSLS member) where I gave a lecture on Cervical Spine Surgery to fellows and residents.

October 26th I visited the Seoul Chuk Hospital, directed by Dong Youn Kim (ISSLS member) that sponsored the ISSLS fellowship. I had chance to attend for the first time a unilateral biportal endoscopic (UBE) surgery for lumbar foraminal stenosis treatment.

October 27th I visited CHA Bundang hospital, the stem cell clinical trial center of the hospital invited by Dr. Inbo Han. I also visited the CHA University Research center where I delivered a talk as invited speaker during the CBMC Global Symposium on Cell Therapy: translational stem cell research: basic to clinical application.

October 28th I attend Korean Spinal Neurosurgery Basic Research Society, Annual Meeting at Yonsei Severance Hospital. I delivered a talk as invited speaker.

From October 29th to November 8th I spent my fellowship in Japan with Prof. Daisuke Sakai at the Department of Orthopaedic Surgery of Tokai University School of Medicine, Kanagawa, Japan. During this period I joined the OR with Dr Sakai observing many cases of degenerative scoliosis treatment using multilevel XLIF combined to posterior instrumentation, cervical laminoplasty.

During my stay in Japan I also visited the Department of Orthopaedic Surgery of Keio University School of Medicine at Tokyo, where I visited Prof. Kota Watanabe. I spend a day in the OR and I joined a case of adolescent scoliosis instrumentation, a case of Occipital-C2 instrumentation and a cervical laminoplasty.

The *ISSLS Clinical Travelling Fellowship* gave me the opportunity to increase my knowledge spine surgery observing new techniques and spending a period of time with the world expert in stem cell therapy for disc regeneration. Indeed, I was able to deeply

discuss with Prof. Daisuke Sakai many issues related to clinical trails in cell therapy for disc treatments.

I sincerely thank the ISSLS selection committee and all the Executive Committee to have given to me this fantastic opportunity. Moreover, I would like to thank Dr. Dong Youn Kim and Seoul Chuk Hospital for kindly sponsor the ISSLS fellowship.

Sincerely yours,

Gianluca Vadalà, M.D., Ph.D.

Early achievements track-record of Gianluca Vadalà:

Over the his past 15 years of education and scientific production, Dr. Vadalà devoted his career to acquire a multidisciplinary knowledge and to organize a multitask network of collaborators to develop new biological therapies included stem cell therapy for the treatment of intervertebral disc degeneration (IDD) aiming to move toward human clinical trials. In 2013 he received the *AOSpine Europe Young Research Award*, the one of the most prestigious European award for research in the Spine Surgery field, for his enthusiastic research on IVD regeneration. In 2016, he received the Best Paper Award at the annual meeting of ISSLS, the most scientifically rigorous society in the spine field. During the same meeting he has been nominate part of the ISSLS board as European Representative. He published over 50 papers in peer-reviewed international journals, …. as first author, with a total Impact Factor of 125, a h-index of 18 (Scopus).

He is currently employed at the University Hospital Campus Bio-Medico of Rome in the Dept. of Orthopaedic Surgery. His activity is both focused on clinic - spine and orthopaedic surgery (80% of his time) - and research (20% of his time). He performs over 250 surgical casis each year (40% spine and 60% orthopaedic and Trauma suregery). He coordinates a Laboratory of Regenerative Orthopaedic Surgery at UCBM with two full-time biologists with expertise on cell and molecular biology as well as on histology.

He works in close collaboration with the *Musculoskeletal Regeneration Program* of the *AO Research Institute of Davos*, Switzerland, coordinated by Prof. Mauro Alini.
In 2005 he performed a 2 years fellowship at *Ferguson Laboratory for Orthopaedic and Spine Research* at *University of Pittsburgh Medical Center (UPMC)* under the supervision of Dr. James Kang.

Currently, he is the PI of the scientific program "*Towards intervertebral disc regeneration: mesenchymal stem/stromal cells with a novel bioactive hydrogel based approach"* as reported in the Founding ID section. This is the most prestigious Italian grant for young scientists in healthcare. He has a research project coordination position at the Cell Factory, Department of Regenerative Medicine, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan that represents the host institution of the above project.
He is the PI of the UCBM unit of the RESPINE project (Proposal number: 732163; € 5,5M total, UCBM unit € 331K; 4 years) recently awarded under the H2020 call: H2020-SC1-2016-2017. To develop the world's first rigorously proven, effective treatment of IDD, RESPINE aims to assess, via a multicentre, randomized, controlled, phase 2b clinical trial including 112 patients with IDD, the efficacy of an allogenic intervertebral mesenchymal stem cell (MSC)-based therapy.