

УНИВЕРЗИТЕТ У КРАГУЈЕВЦУ
ФАКУЛТЕТ МЕДИЦИНСКИХ НАУКА
Наставно-научно веће
Број: 01-8162/10
Дана: 30.08.2023. год.
Крагујевац

УНИВЕРЗИТЕТ У КРАГУЈЕВЦУ
БРОЈ: 01-8162/10
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КРАГУЈЕВАЦ

На седници Наставно-научног већа Факултета медицинских наука у Крагујевцу одржаној дана 30.08.2023. године, донета је

О Д Л У К А

Покреће се иницијатива за доделу почасног доктората Универзитета у Крагујевцу проф. др Лорију Кишшенбауму (Lorrie Kirshenbaum) директору Института за кардиоваскуларне науке St. Boniface Hospital Albrechtsen Research Centre, Манитоба, Канада, директору Центра за развој истраживања и шефу катедре за Физиологију и патофизиологију Max Rady College of Medicine, Rady Faculty of Health Sciences, Манитоба, Канада.

Образложење

Проф. др Лори Кишшенбаум (Lorrie Kirshenbaum) аутор је десетина књига и поглавља, рецензент више десетина престижних светских часописа, аутор преко 160 радова на SCI/CC листи, ментор великог броја докторских дисертација, аутор два патента и позивни предавач на преко 100 симпозијума, донета је одлука као у диспозитиву.



ПРЕДСЕДАВАЈУЋИ ВЕЋА

проф. др Владимир Јаковљевић, декан

УНИВЕРЗИТЕТ У КРАГУЈЕВЦУ

БРОЈ _____
ДАТУМ 01-09-2023
КРАГУЈЕВАЦ

УНИВЕРЗИТЕТ У КРАГУЈЕВЦУ
ФАКУЛТЕТ МЕДИЦИНСКИХ НАУКА
У КРАГУЈЕВЦУ

ПРИМАЉЕНО:		25. 08. 2023	
Орг. јед.	Број	Својим	Образложност
01	8230		

УНИВЕРЗИТЕТ У КРАГУЈЕВЦУ
ФАКУЛТЕТ МЕДИЦИНСКИХ НАУКА
НАСТАВНО-НАУЧНОМ ВЕЋУ

Поштоване даме и господо,
уважени чланови Наставно-научног већа,

Са особитим задовољством Вам упућујем предлог о покретању иницијативе за доделу звања почасног доктора наука Универзитета у Крагујевцу проф. др Лорију Киршенбауму (Lorrie Kirshenbaum). Проф. Киршенбаум је директор Института за кардиоваскуларне науке St. Boniface Hospital Albrechtsen Research Centre, Манитоба, Канада, директор Центра за развој истраживања и шеф катедре за Физиологију и патофизиологију Max Rady College of Medicine, Rady Faculty of Health Sciences, Манитоба, Канада. У погледу сциентометријских података, између осталог треба поменути и то да је проф. Киршенбаум аутор десетина књига и поглавља, рецензент више десетина престижних светских часописа, аутор преко 160 радова на SCI/CC листи, ментор великог броја докторских дисертација, аутор два патента и позивни предавач на преко 100 симпозијума.

Будући да је проф. Киршенбаум глобално један од најеминентнијих лидера из области кардиоваскуларних истраживања, чврстог сам убеђења да би усвајање овог предлога и избор проф. Киршенбаума у почасног доктора наука, немерљиво значао Факултету медицинских наука и Универзитету у Крагујевцу.

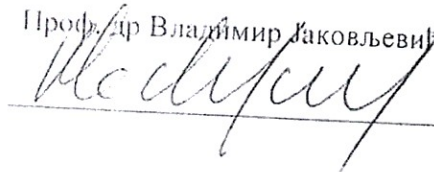
У прилогу Вам достављам анализу професионалних достигнућа проф. др Лорија Киршенбаума.

У Крагујевцу
24.08.2023.

С поштовањем

ДЕКАН

Проф. др Владимир Јаковљевић



Detailed Analysis of Professional Achievements of Dr. Lorrie Kirshenbaum

Background Information

Dr. Kirshenbaum was recruited to the University of Manitoba and the Institute of Cardiovascular Sciences at the St. Boniface Hospital Albrechtsen Research Centre in 1995 after completing a successful post-doctoral fellowship at Baylor College of Medicine in Houston, Texas. He is now a full Professor in the Department of Physiology and Pathophysiology as well as the Department of Pharmacology and Therapeutics, and serves as Director of Research Development, within the Office of the Vice-Dean Research of the Max Rady College of Medicine, Rady Faculty of Health Sciences since 2011. In addition, he is Director of the Institute of Cardiovascular Sciences and Naranjan Dhalla Chair in Cardiovascular Sciences at the St. Boniface Hospital Albrechtsen Research Centre, and the Division Head of Cardiovascular Sciences and Disease for the Department of Physiology and Pathophysiology, Max Rady College of Medicine, Rady Faculty of Health Sciences.

Dr. Lorrie Kirshenbaum is a world-renowned cardiovascular scientist and is at the forefront of several research fields including heart failure, cancer biology and programmed cell death. His pioneering discoveries have revolutionized the basic understanding of heart disease at the genetic and molecular level and have resulted in paradigm shifts in understanding disease process and that have become adopted practices worldwide.

His leading-edge discoveries underlying chemotherapy-induced heart failure have major implications for early detection and treatment of millions of cancer patients worldwide. One can use any yardstick to assess Dr. Kirshenbaum's scholarly performance albeit, publication record (quality and quantity), research funding, mentoring and training and community outreach; it would all read as "outstanding". Over the past 28 years, Dr. Kirshenbaum has addressed multiple questions of clinical importance that is characterized by innovation, rigor, depth, completeness and more importantly has withstood the test of time. Dr. Kirshenbaum is one of the pioneering cardiovascular scientists who postulated and later proved that the ensuing heart failure that follows in the days and weeks following heart attack occurs from the indiscriminate death of heart cells.

Building on Dr. Kirshenbaum's seminal finding which prominently placed him on the world stage, he discovered a unique class of genes that serve as "decision points" that determine whether heart cells will "live or die". Dr. Kirshenbaum showed that when the heart muscle is deprived of oxygen such as during a heart attack, these toxic genes are "switched on" which re-program the heart muscle cells to die, resulting in heart failure. The molecular circuitry delineated by Dr. Kirshenbaum is one of his most impactful translational works that has been embraced by the scientific community globally. His work provided the conceptual basis for the development of new therapies to lessen heart damage and change clinical management and quality of life of heart attack patients. In fact, Dr. Kirshenbaum has developed a new class of drugs and showed that by "switching off" these genes, he could prevent heart muscle damage and heart failure.

Even more profound, he made the critical connection between cardiac cell death and heart failure in cancer patients treated with the widely used chemotherapy agent doxorubicin. More specifically, Dr. Kirshenbaum showed in preclinical trials that chemotherapy induced heart failure was reduced by more than 50% with new inhibitors that he developed. This discovery was translated into US

patents and highlighted by *Canadian Institute of Health Research* as a major game changing advancement that will greatly benefit the millions of people diagnosed with cancer annually worldwide. Dr. Kirshenbaum is currently working on developing these compounds for application as adjunctive therapies to mitigate the cardiotoxic effects of chemotherapeutic agents.

Dr. Kirshenbaum's research contributions to the cardiovascular community extend beyond the borders of Manitoba and have received prominent national and international media coverage by CTV, CBC, Global, Free Press and social media. His international stature is further evidenced by the number of invitations to speak at scientific conferences globally more than 235 lectureships in 25 different countries worldwide. This speaks to the prominence of Dr. Kirshenbaum on the global stage.

This important work has been prominently showcased by the St. Boniface Hospital Foundation and the University of Manitoba during several capital fundraising programs with the global impact of his contributions toward advancing the field recognized at the highest level through societal honours and awards worldwide, including the International Society for Heart Research Award, Canadian Cardiovascular Society Research Achievement Award, International Academy of Cardiovascular Sciences, Lifetime Achievement Award and American Society for Clinical Investigation.

Health Research Funding

Since the start of his career, he has received continuous grant support from a variety of different agencies (>\$25 million) including a prestigious seven-year CIHR Foundation grant (\$3.3 million); Heart and Stroke Foundation of Canada; and two Canada Foundation for Innovation grants (> \$2.5 million) to develop a state-of-the-art live- cell imaging and viral gene delivery platforms at the University of Manitoba. He also recently received a newly funded NIH grant which is a very prestigious achievement not often granted to scientists outside the USA. He also co-directed a five-year CIHR network grant entitled "Congestive Heart Failure Network" (\$5 million) that was comprised of 25 cardiovascular investigators, and cardiologists throughout Canada and have recently submitted a multi-investigator CFI grant. Dr. Kirshenbaum was also awarded prestigious Canada Research Chairs in Molecular Cardiology Tier II, (2001-2011) and Tier I (2011-present) for his outstanding contributions to cardiovascular research and medicine. This level of consistent external grant support from national and international agencies is testimony to the high caliber and regard of Dr. Kirshenbaum by his scientific peers and community.

Scholarly Activities

Dr. Kirshenbaum's outstanding scholarship is expressed in more than 300 multidisciplinary research articles, text books, book chapters, books and abstracts in areas on molecular cardiology, cell signaling, and heart failure. Many of these are landmark publications appear in top ranked multi-disciplinary journals including: *Proceedings of the National Academy of Science*, *Circulation Research*, *Circulation*, *Human Molecular Genetics*, *Journal of Clinical Investigation*, *Nature Medicine*, *Nature Cancer*, *Nature Communication* and many others. He has written several definitive reviews on *Cell Death*, *Mitochondrial Biology* and *Autophagy*. Notably, the Bibliometric company Altmetric Research Inc. ranked Dr. Kirshenbaum's 2019 article published in *Circulation* - the highest ranked Cardiovascular journal worldwide in the top 5% of more than 13,352,827 research outputs. There are >14,000 worldwide citations on the application of his

research. Perhaps one of the best examples of Dr. Kirshenbaum's presence on the world stage is demonstrated by a recent 2021 report by Stanford University, San Francisco identified Dr. Kirshenbaum to rank in the top 2% of the world's 7 million working scientists, which is a tremendous achievement that reflects the global and seminal impact of his work.

Director of the Institute of Cardiovascular Sciences

As the Director of the Institute of Cardiovascular Sciences, he leads a staff of ~120 individuals that include cardiovascular scientists, clinical cardiologists, graduate students, medical students, post-doctoral fellows, research associates, technicians and visiting scientists. He is responsible for the research vision and conduct of all research activities within the Institute of Cardiovascular Sciences. Through his leadership he created an environment that actively supports and promotes sex and gender equity, diversity and inclusion within and outside the institute and engaged in Path to Reconciliation programs. Through his leadership one of his most important endeavors includes championing the creation of a dedicated women's heart health program at St. Boniface Hospital, the first of its kind in the province to support research, education and cardiac care with a focus on under represented individuals in the province including Metis, First Nations and Indigenous women living with heart disease. The purpose of the centre is to provide needed cardiovascular care to women within the province but more importantly serve as centralized network with other centres such as the Mayo Clinic in Rochester and Barbra Streisand Women's Heart Center at Cedars Sinai in Los Angeles. Another major achievement that Dr. Kirshenbaum is credited for is the organization of the first joint conference of the International Society for Heart Research and the International Academy of Cardiovascular Sciences, a major international cardiovascular conference that was recently held in Winnipeg, Manitoba (September 6-9th, 2022) that attracted more than 330 cardiovascular experts from all around the world to the province of Manitoba which was thematically based on advances in cardiovascular medicine through equity, diversity and inclusion. Dr. Kirshenbaum is credited with attracting several world leaders in cardiovascular medicine to Winnipeg. Importantly, Dr. Kirshenbaum has a major interest in promoting excellence in cardiovascular research and education and helping other institutions throughout the world. I consider Dr. Kirshenbaum's genuine interest in helping others achieve excellence to be one of his biggest strengths. Importantly, he has recently established a memorandum of understanding with the University of Kragujevac, Serbia to develop a collaborative partnership that will enhance research, training and mentoring of students, visiting scientists and create opportunities for increased external grant support and collegial exchange of research.

National and International Services

As an exceptional scientific opinion leader, Dr. Kirshenbaum is sought by professional societies and grant agencies worldwide. He holds elected executive positions within societies and government funding agencies in the UK, Canada, Italy, Israel, Kuwait, Switzerland, and USA. His prominence on the world stage has brought him editorships and editorial reviewer positions for top-ranked journals. He is the editor-in-chief of the Canadian Journal of Physiology and Pharmacology and serves as the chair of several international peer review grant and advisory committees such as the Swiss National Science Foundation, Israel Sciences Foundation, Glaxo Smith Kline and scientific consultant to NASA and the Canadian Space Agency, which is a tremendous reflection of Dr. Kirshenbaum's presence on the world stage and sought-after expertise.

Community and Health Promotion

Dr. Kirshenbaum is highly committed and a strong supporter of promoting heart health and disease prevention in the province of Manitoba as well as Canada with a strong sense of community. He often speaks at elementary schools, high schools and public heart health forums and is frequently invited to speak on radio shows such "The Health Report" on CJOB, and Power 97 as a spokesperson promoting cardiovascular health. He is actively involved in capital fund raising campaigns for the St. Boniface Hospital which has raised more than 150 million dollars for cardiovascular research and patient care in the province of Manitoba. Dr. Kirshenbaum's international leadership is further exhibited by the number of invitations to serve on editorial boards of high impact top ranked journals, as well as the number of invitations to speak at major conference.

Mentorship and Training

Dr. Kirshenbaum serves as a role model, mentor and coach and is strongly committed to training the next generation of scientists and health care professionals. Over the past 28 years, he has trained more than 157 graduate students, BSc Med students, summer students, post-doctoral fellows and visiting scientists from all over the world. In fact, many of his trainees >75% have won several young investigator awards including prestigious salary awards from the CIHR, and other agencies. Many of his trainees have become outstanding leaders in medicine, research and industry, which reflects the high caliber of next generation scientists and medical professionals that contribute to the community within and outside Manitoba.

In summary, Dr. Kirshenbaum possesses an uncommon combination of outstanding scientific accomplishments, superb leadership teaching abilities, deep vision, exemplary interpersonal skills, and unquestionable international stature. His total body of research and scholarly activity is a remarkable achievement as it demonstrates focus and consistency of theme to answer questions that are both fundamentally important and clinically relevant in advancing the field of his expertise. Dr. Kirshenbaum's research has been at the forefront globally with his major contributions leading to advancements in research, drug discovery, mentorship reflecting well on the global scientific community. I consider that Dr. Lorrie Kirshenbaum belongs to a rare class of individuals, who have achieved excellence in the area of their investigations and professional career.

Dated July 17, 2023

Naranjan S. Dhalla
Winnipeg, Canada