PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF PATHOLOGY

Approved by the Regents May 21, 2015

Zaneta Nikolovska-Coleska, Ph.D., assistant professor of pathology, Department of Pathology, Medical School, is recommended for promotion to associate professor of pathology, with tenure, Department of Pathology, Medical School.

Academic Degrees:

Ph.D.	1999	University Ss. Cyril and Methodius, Skopje, Macedonia
M.S.	1993	University Ss. Cyril and Methodius, Skopje, Macedonia
BSc.	1987	University Ss. Cyril and Methodius, Skopje, Macedonia

Professional Record:

2008-present	Assistant Professor of Pathology, University of Michigan
2004-2008	Research Investigator, Department of Internal Medicine, University of Michigan
2000-2004	Assistant Professor of Pharmacy, University Ss. Cyril and Methodius, Macedonia

Summary of Evaluation:

Teaching: Dr. Nikolovska-Coleska has made a significant commitment to education. She has mentored numerous graduate students, post-doctoral fellows and undergraduate students in the laboratory. She has been a member and chair of 27 dissertation committees in the past four years. She is currently the director of the Molecular and Cellular Pathology graduate program in the Department of Pathology. She and two of her colleagues have developed a course in translational pathology that is given to both graduate students and pathology residents. This unique course was introduced into the curriculum in the fall of 2013. There is already interest from other institutions who might like to offer similar courses. Dr. Nikolovska-Coleska is also the co-director of a pilot pre-doctoral training program in translational pathology which was instituted in January of 2014. Finally, she has given numerous graduate student level lectures in pathology, chemical biology and cancer biology. She is regarded as an enthusiastic, dedicated and effective educator.

Research: Dr. Nikolovska-Coleska's research involves chemical genomics, discovery and application of active chemical compounds in biologic systems that may prove treatment of certain diseases. This includes the development of small molecule myeloid cell leukemia and apoptosis inhibitors. Her laboratory studies protein/protein interactions that regulate epigenetic mechanisms that may offer therapeutic targets. She has established collaborations

with other well-known scientists both at the University of Michigan and elsewhere. Her laboratory is an integral component of the drug discovery community at Michigan. Her work has been published in high-quality, peer-reviewed journals including *Molecular Cancer Therapeutics*, *Journal of Biological Chemistry*, *Cancer Research*, and *BMC Biotechnology*. She has been invited to present her work at national and international meetings including the AACR, the International Chemical Biology Society, and Drug Discovery Chemistry. She has also been invited to present her work at a number of pharmaceutical centers. Her work has been continually funded, and currently, she is the principal investigator on a R0l involving novel selective small molecule inhibitors, and she is the co-investigator on five other grants. She has been invited to edit a special issue in *Frontiers in Bioscience* involving targeting apoptosis pathways in cancer therapy.

Recent and Significant Publications:

Du Y, Nikolovska-Coleska Z*, Qui M, Li L, Lewis I, Dingledine R, Stuckey JA, Krajewski K, Roller PP, Wang S, Fu H: A dual-readout f(2) assay that combines fluorescence resonance energy transfer and fluorescence polarization for monitoring bimolecular interactions. (*co-first author and co-corresponding author) *Assay Drug Dev Technol* 9:382-393, 2011.

Pal A, Huang W, Li X, Toy KA, Nikolovska-Coleska Z, Kleer CG: CCN6 Modulates BMP Signaling via the Smad-Independent TAK1/p38 Pathway, Acting to Suppress Metastasis of Breast Cancer. *Cancer Res* 72:4818-4828, 2012.

Shen C, Jo SY, Liao C, Hess JL, Nikolovska-Coleska Z: Targeting recruitment of disruptor of telomeric silencing 1-like (DOT1L): Characterizing the interactions between dot1l and mixed lineage leukemia (MLL) fusion proteins. *J Biol Chem* 288:30585-30596, 2013.

Abulwerdi F, Liao C, Liu M, Azmi AS, Aboukameela A, Mady AS, Gulappa T, Cierpicki T, Owens S, Zhang T, Sun D, Stuckey JA, Mohammad RM, Nikolovska-Coleska Z: A novel small-molecule inhibitor of Mcl-1 blocks pancreatic cancer growth in vitro and in vivo (Highlighted in *Molecular Cancer Therapeutics* Press Release, March 2014) *Mol Cancer Ther* 13:565-75, 2014.

Abulwerdi, F, Liao C, Mady A, Gavin J, Shen C, Cierpicki T, Stuckey J, Showalter H, Nikolovska-Coleska Z: 3-Substituted-N-(4-Hydroxynaphthalen-1-yl) arylsulfonamides as a novel class of selective Mcl-1 inhibitors: Structure-based design, synthesis, SAR and biological evaluation *J Med Chem* 57:4111-4133, 2014.

Service: Dr. Nikolovska-Coleska has significant commitments to her profession, her institution and her department. She is a grant reviewer for agencies in Macedonia and New Zealand, The Breast and Prostate Cancer Research Programs of the Department of Defense, and she has been an ad hoc reviewer for about fifteen journals as well as a member of the inaugural editorial board of a new journal called *Oncobiology and Targets*. She is on the membership committee of the International Chemical Biology Society. At the University of Michigan, she has been a member of numerous committees involving graduate programs in Molecular and Cellular Pathology, Chemical Biology and Medicinal Chemistry including admissions committees, curriculum committees and student recruitment activities.

External Reviewers:

Reviewer A: "...in her area of research, Dr. Nikolovska-Coleska has shown a very high degree of creativity and innovation, which will definitely continue to enrich the field of drug discovery and chemical biology."

Reviewer B: "...I am quite impressed with the quality and creativity of Dr. Nikolovska-Coleska. Her productivity has been extremely high, and the quality and originality of her work is outstanding."

Reviewer C: "Her research program enjoys national and international recognition as evidenced by her history of invited seminars and presentations....As an Assistant Professor, she has been grated several patents as Inventor or Co-inventor of new anticancer drugs."

Reviewer D: "...Dr. Nikolovska-Coleska is performing cutting-edge and significant work that has strong potential to translate to improved therapeutic options for cancer patients. Her work with Mcl-1 inhibitors has led to a major advance in the fields of apoptosis biology and oncology. Her prospects for maintaining ongoing extramural funding from the NIH and other agencies are high."

Reviewer E: "...Dr. Nikolovska-Coleska is a creative and productive scientist [of her cohort] who has established herself as a leader in the fields of drug discovery and translational medicine. She could have earned tenure in pathology departments in leading medical schools in [the] US including ours. I am confident that the momentum she has built in her research program will continue and her impact on the development of novel anticancer drugs will become even more evident in the future."

Reviewer F: "In terms of teaching, Dr. Nikolovska-Coleska is an excellent educator. She has advised numerous graduate and undergraduate students and postdoctoral fellows. In addition, Dr. Nikolovska-Coleska has been a lecturer or co-director in several courses and served on a long list of dissertation committees. Further attesting to her teaching abilities, Dr. Nikolovska-Coleska has been invited to present her research at a number of national and international conferences and at major pharmaceutical companies."

Reviewer G: "Dr. Nikolovska-Coleska possesses a unique expertise in Medicinal Chemistry that is hard to find and highly sought after."

Reviewer H: "Her unusual ability to marry a wide variety of techniques and her creative approach to research augur well for the future. She will be an asset to any institutions with a serious interest in translational medicine."

Summary of Recommendation:

Dr. Nikolovska-Coleska is an internationally renowned scientist whose work has dealt with protein-protein interactions and the development of small molecular inhibitors of apoptosis that may be potential cancer chemotherapeutic agents. Her work has been published in outstanding journals, and she has been invited to present her work at numerous venues. She has also been continually funded from external sources. In addition, she has made significant contributions to the educational programs of the Medical School, including development of a unique new course in translational pathology. She is also currently the director of the Molecular and Cellular Pathology Graduate Program. I am pleased, therefore, to recommend Zaneta Nikolovska-Coleska, Ph.D. for promotion to associate professor of pathology, with tenure, Department of Pathology, Medical School.

James O. Woolliscroft, M.D.
Dean
Lyle C. Roll Professor of Medicine

May 2015