

SUBMITTED BY:

M. ROY WILSON, PRESIDENT

**RECOMMENDATION TO RENEW CHARTER
CENTER FOR MOLECULAR MEDICINE AND GENETICS**

RECOMMENDATION

It is recommended that the Board of Governors renew the charter for the Center for Molecular Medicine and Genetics (CMMG) through October 2023, as recommended by the Center and Institute Advisory Committee-II (CIAC-II). The Vice President for Research concurs with this six-year charter renewal recommendation, as does the Policy Committee of the Academic Senate.

BACKGROUND

CMMG's mission is to enhance research strength in molecular biology and genetics at WSU and to extend its interdisciplinary programs to targeted human health research by:

- Promoting interdisciplinary interactions and collaborations between basic and clinical scientists throughout the University and its affiliated hospitals
- Developing focused interest groups and novel approaches to clinical problems to provide new opportunities for external funding of individual and programmatic research and training grants
- Developing educational and training programs in molecular medicine and genetics
- Developing and using medical biotechnology in the prevention, diagnosis, and treatment of disease, and utilizing this technology transfer to benefit human health

CMMG was formed in October 1994, with charter reviews in 1999 and 2006. The final revision of the previous charter review was completed on September 21, 2011. The current charter review covers the period from 2011 to 2016 with the new proposed charter period from 2017 to 2023. The center currently has 20 primary faculty members and 7 joint faculty members.

The center leadership has been modified since the last review. Drs. Lawrence Grossman, Alexander Gow, and Gerald Feldman continue as Director, Associate Director, and Division Head of Clinical Genetics. New members are Dr. Maik Hüttemann (Research) and Dr. Russell Finley (Education). All have impressive records of accomplishment. The leadership recognizes that there are significant challenges to the operation of the center, particularly since some of the members with high profiles have moved to other institutions.

REVIEW

In accordance with the Board of Governors Wayne State University Statute 2.23.01 *Centers and Institutes: Policy on Creation, Operation, Review, and Discontinuance*, the CMMG underwent a formal review by the Center and Institute Advisory Committee-II (CIAC-II) in winter of 2017.

The CIAC-II subcommittee reviewed the following materials as part of their assessment of the CMMG:

- CMMG self-study
- CIAC-II report from the 2011 CIAC-II review
- OVPR Guidelines for center reviews
- CMMG faculty funding summary data
- A fiscal year breakdown of cost and count of funded and not funded grant proposals provided by OVPR out of COEUS (requested by the committee)
- Minutes of the November 2016 internal advisory board meeting (requested by the committee)

The committee conducted a site visit at which CIAC-II subcommittee members received a tour of the center facilities from the director and met with the center's doctoral and masters students, postdoctoral researchers, non-tenured faculty, internal advisory board members, tenured faculty, genetic counseling graduate program staff and instructors, center leadership and the dean of the medical school.

The subcommittee report recommending that the charter for this Institute be renewed for a period of six years was submitted to and approved by the full CIAC-II committee. The full committee submitted a final report to the Vice President for Research and to the Policy Committee of the Academic Senate. The Policy Committee of the Academic Senate received the report and prepared a recommendation for a six-year renewal also.

CMMG STRENGTHS INDICATED BY CIAC-II

The review team determined that CMMG brings value to its constituencies, associates and students as specified in the mission statement. Based on the self-study document and site visit interviews, the center has fostered interdisciplinary interactions and collaborations between basic and clinical scientists that would be difficult to achieve within the traditional university departmental structure. While all faculty associated with the center belong to various departments within the School of Medicine, center membership is open to all interested faculty from other WSU colleges, e.g., the College of Liberal Arts and Sciences and the College of Engineering. The interdisciplinary and collaborative spirit of the center has resulted in a strong external funding record, with an increasing trend since the last review (accounting for the dip associated with faculty departures in 2013). While the center somewhat unusually lacks a "center grant", its funding record is impressive. In fact, CMMG's total grant portfolio has grown considerably during the previous charter period, to over \$28 million. Members have published about 370 papers and obtained 16 patents during the charter period.

The center features four main area of research focus: inflammation, metabolism, neurogenetics and functional genomics. These are linked by core bridging disciplines such as computational biology, molecular biology, translational medicine and genetics/genomics. The genetic

counseling program also provides a critical bridge between basic sciences and translational research. The evolution of focus areas compared to previous charter period naturally reflects changing membership of the center and accounts for faculty departures and new recruitments. In addition to the advantage of having a designated (and recently renovated) space for the center in Scott Hall, interactions among members are enhanced by forums and seminars.

CMMG has successfully recruited 6 new faculty members from outside the University during the charter period.

The center offers a Ph.D. in Molecular Genetics and Genomics, which is arguably one of the strongest in the medical school. Eighteen students have graduated from the Ph.D. program over the charter period. Seventy-five research papers were co-authored by center students over the same period. The center also offers an M.S. in Genetic Counseling and has graduated twenty-nine students over the charter period. A new M.S. program in Molecular Genetics and Genomics is now offered. The center has active Medical Genetics Residency and Fellowship Programs. CMMG offers rich and diverse educational and training experiences reflecting the interdisciplinary nature of their areas of focus and collaborative research efforts.

The Center has fostered interdisciplinary interactions and collaborations between basic and clinical scientists associated with the center that would be difficult to achieve within the traditional university departmental structure. The Center's students were enthusiastic about research and educational programs provided. These would not fit well in any existing department, but are very natural for the Center's research directions: PhD in Molecular Genetics and Genomics, MS in Genetic Counseling and a new MS program in Molecular Genetics and Genomics. The committee is in agreement that the Center enhances the missions and functions of the related departments by supporting the development of focused interest groups for research, by aiming at the highest standards of education, and by fostering highly innovative training programs. There is a strong record of scholarship from the Center members, associates and students with many peer reviewed publications, presentations, awards, etc. CMMG is clearly adding academic value to the University in a way that is unique and would be difficult to reproduce without the Center.

Through research, education and service, CMMG members contribute to the local, regional and international community. Of note, members serve on grant application review committees, hold leadership positions at national research societies and provide peer review for journals. Members participate in community outreach such as Future Docs and Go-Girls to expose young individuals to research and science. Members participate in and have initiated and continue to lead campus-wide interdisciplinary research emphasis groups. In these ways and others, CMMG interacts with researchers and the general public both locally and abroad.

CIAC-II RECOMMENDATIONS FOR NEXT CHARTER PERIOD

- Continue efforts to submit a T32 grant application with a focus on genomics and/or metabolomics, current strengths of the research program

- Work to develop additional clinical resources to support placement of students in the Genetic Counseling program
- Reinststate an external advisory board and hold regular meetings to solicit feedback
- Apply for a center grant based on research themes in CMMG
- Identify and recruit joint members from outside of the School of Medicine
- Assess new M.S. Program in Molecular Genetics and Genomics to ensure that the program is fulfilling stated goals and objective
- Increase efforts to expand diversity of center senior members and leadership team
- Increase philanthropic and fundraising activities