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# Genetics Area Program

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Genetics Area Program  
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Email:gap@missouri.edu

The Genetics Area Program (GAP) is an interdisciplinary Ph.D. program that will prepare you for a research or teaching career in genetics. As genetic analysis is used in all aspects of biological research, our Program has integrated the efforts of approximately 60 life sciences faculty into one of the strongest training programs at MU.

The curriculum provides broad, individualized training tailored to your career objectives.

## Faculty

**Professor** S. Alexander\*\*, K. L. Bennett\*\*, J. A. Birchler\*\*, A. K. Chatterjee\*, G. Davis\*\*, D. Duan\*\*, D. W. Emerich\*\*, W. R. Folk\*\*, J. Gorski, T. J. Guilfoyle\*\*, J. P. Gustafson\*, M. Hannink\*\*, G. Hazelbauer\*\*, M. L. Katz\*\*, M. Liscum\*\*, C. Lorson\*\*, D. B. Lubahn\*\*, B. A. McClure\*\*, K. J. Newton\*\*, H. Nguyen\*\*, D. J. Pintel\*\*, J. E. Schoelz\*, R. D. Semlitsch\*\*, D. Setzer\*, D. A. Sleper\*, G. Stacey\*\*, J. J. Tanner\*\*, J. Taylor\*\*, J. C. Walker\*\*, H. Zaghouni\*\*

**Curators' Professor** R. M. Roberts\*\*

**Associate Professor** E. A. Bryda\*\*, D. Burke, J. F. Cannon\*\*, A. Chandrasekhar\*\*, G. L. Davis\*\*, C. Franklin\*\*, W. Gassmann\*\*, M. W. Golomb\*\*, L. J. Holland\*\*, T. P. Holtsford\*, G. S. Johnson\*, T. Kazic\*\*, M. Kirk\*\*, D. R. Lee\*\*, M. E. Martin\*, B. Peculis\*\*, C. L. Phillips\*\*, C. Tan, T. Zars\*\*, S. Zhang\*\*

**Assistant Professor** M. Garcia\*\*, S. Sarafianos

**Adjunct Professor** H. B. Krishnan\*

**Adjunct Associate Professor** M. D. McMullen\*\*

**Adjunct Assistant Professor** S. Flint-Garcia\*\*

**Research Professor** G. Hagen\*

\* Graduate Faculty Member - membership is required to teach graduate-level courses, chair master's thesis committees, and serve on doctoral examination and dissertation committees.

\*\* Doctoral Faculty Member - membership is required to chair doctoral examination or dissertation committees. Graduate faculty membership is a prerequisite for Doctoral faculty membership.

## Undergraduate

While MU does not offer undergraduate degrees specifically in the genetics area program, the University does offer baccalaureate opportunities in a number of related areas in the other Schools and Colleges that make up the University. The catalog provides a complete list of these degree options (<https://catalog.missouri.edu/degreesanddegreeprograms/>).

## Graduate

- PhD in Genetics Area Program (<https://catalog.missouri.edu/graduateschool/geneticsareaprogram/phd-genetics-area-program/>)

## About the Program

We believe that an understanding of genetics is essential in solving global problems such as famine, environmental degradation and disease.

The Genetics Area Program (GAP) is an interdisciplinary PhD program that will prepare you for a research or teaching career in genetics. As genetic analysis is used in all aspects of biological research, our Program has integrated the efforts of approximately 60 life sciences faculty into one of the strongest training programs at MU. The curriculum provides broad, individualized training tailored to your career objectives.

Genetics graduate students play a major role in the research programs of our life sciences departments. Students spend approximately twelve weeks in three different laboratories during their first year. This promotes diversity in techniques learned, and it encourages students to meet and work with faculty members in the associated departments. This scientific interaction helps our students choose a lab in which to complete the degree.

As part of the degree, students will spend a semester teaching or assisting with a course in the Genetics curriculum that is relevant to their career goals.

A genetics seminar series is organized and conducted by the graduate students to promote research interest and encourage scientific communication. Speakers include prominent researchers from universities throughout the country, as well as MU faculty. An annual retreat brings faculty and students together to share research results and techniques.

Genetics graduates leave MU with a strong scientific background, excellent laboratory skills and interpersonal communication abilities.

### GENETICS 8187: Seminar in Genetics

Genetics Seminar provides students registered in the interdisciplinary Genetics Area Program a required seminar course that explores topics in genetics and the development of presentation skills. The course meets weekly for one-hour and develops critical analysis of genetic and genomic techniques through a combination of student and faculty led journal reviews, student presentations, and invited and faculty lectures. On an annual rotating basis students cover several topics during their graduate career practicing oral scientific presentation skills for a variety of situations including short (10 minute) presentations, hour long seminars, and lay public presentations for non-scientific audiences on their current laboratory research. Students also choose articles from the genetics literature to review, critically analyze, and present as discuss as a group. Graded on S/U basis only.

**Credit Hour:** 1

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### GENETICS 9090: Research in Genetics

Research leading to Ph.D. Graded on S/U basis only.

**Credit Hour:** 1-99

**Recommended:** Must be a currently enrolled student in the Genetics Area Program

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