MEDICAL SCIENTIST — M.D./PH.D.

Program director
Penelope J. Duerkson-Hughes

Objectives
Loma Linda University is committed to fostering the investigative skills of its medical students. Students interested in pursuing careers in academic medicine and medical research may wish to enroll in one of the combined degrees programs.

The Medical Scientist Program is designed to develop a student’s independence and competence as an investigative scientist and clinician. It provides students with a broad educational base for the practice of medicine and related research. The program is administered by the School of Medicine in cooperation with the Faculty of Graduate Studies.

Program description
The program is designed to attract students who are energized by doing research and want to contribute substantially to this enterprise.

Students enter this combined degrees course through the graduate program. In the first year, students participate in a new and revised, scientifically integrated program that includes biochemistry, molecular biology, physiology, pharmacology, and anatomy. While in the first year, students also rotate through the laboratories of selected faculty members.

In the second year, students increase their involvement with individual laboratory projects while continuing to complete graduate course requirements. Students in selected areas may also be asked to serve as teaching assistants for graduate or medical classes. Students pursuing the combined degrees will also be involved with joint basic science and clinical meetings and conferences with the aim of understanding the interrelationships between laboratory-based and clinical research.

Upon demonstration of laboratory success, as indicated by completion of a first-author manuscript, the student will continue on to the traditional first two years of the medical school curriculum. It is anticipated that the amount of time required to demonstrate laboratory success will be two-to-three years. Successful students who have acquired essential laboratory skills should continue their affiliation with the host laboratory and continue research progress as time permits while in the medical school curriculum.

Upon successful completion of the first two years of the medical curriculum and Step 1 of the USMLE, students will begin a series of rotations between the clinical sciences and the research laboratory. During these later years, students will complete all of the standard clinical rotations and continue progress on laboratory projects with the stipulation that all requirements for the Ph.D. degree must be completed by no later than December 31 of the year the student graduates from the M.D. degree program. It is the intent of this program that students acquire the requisite skills needed for a successful career at the interface of laboratory-based and clinical research.

Admissions
Admission into the Medical Scientist Program is competitive and requires evidence that the student is likely to develop into a successful medical scientist. The student must submit separate applications to the School of Medicine for both the M.D. and the Ph.D. degree programs, and meet the stated admissions requirements for each of these programs. The application package for the Ph.D. degree requires scores for the general test of the Graduate Record Examination. Both programs must accept the student’s scores before s/he is admitted to the Medical Scientist Program. Students entering the M.D./Ph.D. combined degrees program who determine that a research career is inappropriate may elect to complete the M.D. degree program independently. Students entering the Ph.D. degree program who desire a career in academic medicine may choose to apply for admission to the M.D./Ph.D. combined degrees program at a point after their entry into the Ph.D. degree program; however, the standard medical school application process will be required at that point.

Financial assistance
Financial assistance to students in the Medical Scientist Program may provide:

1. Cost-of-living stipends during those periods in which students are most directly involved in graduate education. The amount of the stipend is equivalent to that available to Ph.D. degree students in the basic science graduate programs.*
2. Tuition waivers for all graduate program course work.
3. Tuition deferment for the first and second years of the M.D. degree curriculum. When a student completes an M.S. or Ph.D. degree, tuition deferred from the first and second years is canceled.
4. Tuition waiver for both the third and fourth years of the M.D. curriculum, upon completion of a Ph.D. degree.

Tuition assistance for the MD portion of the combined degree program is not given to all students who earn both degrees. Assistance for the MD portion will only be given in cases where an applicant has received approval from the School of Medicine MD/PhD Admissions Committee prior to beginning the MD coursework. Assistance that is received will be in the form of an institutional loan which will cover MD tuition and fees but will not include living expenses. The School of Medicine makes provision for the loan to be forgiven when a recipient meets the terms described below and in the loan agreement.

Loans for the first two years of the MD curriculum will be canceled when a student completes the PhD within the time schedule described below and according to the terms of the loan agreement. Loans for the third and fourth year of the MD curriculum may be canceled when a student completes the PhD degree within the time schedule described below and according to the terms of the loan agreement.

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M.D./Ph.D. degree students are ordinarily expected to complete their Ph.D. degree before beginning the third year of medical school. Students who have not completed the Ph.D. degree may apply for a tuition deferment for their third year of the medical curriculum, and, in unusual cases, for the first term of their fourth year. Applications for tuition deferment beyond the first two years must be approved by the student's dissertation committee and signed by the dissertation advisor, the associate dean for basic sciences, and the dean of the School of Medicine. Under no circumstances will a student be granted a tuition deferment or be allowed to register for the last term of medical school until s/he has finished the requirements for the Ph.D degree. If a student withdraws from the Ph.D. degree program his/her tuition deferments will be converted to a loan. Completion of the M.D. degree terminates the student’s participation in the Medical Scientist Program and ends

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the availability of tuition waiver. Any tuition deferments then in force will convert to loan obligations at that time.

* Stipends from the School of Medicine will be awarded for the first two years of the graduate program, provided that the student makes satisfactory academic process and remains in good and regular standing. Stipends covering study beyond the first two years should ordinarily be obtained from the individual laboratories or departments in which the student conducts research.