



Chemistry of Life Processes Institute
Predoctoral Training Program Seminar

Systems Medicine and Proactive P4 Medicine: Catalyzing a Revolution in Healthcare through Wellness

Wednesday, May 20 | 4:00PM

Abbott Auditorium, Pancoe Hall
Reception to follow in Silverman Hall



Leroy Hood, MD, PhD Institute for Systems Biology

Systems medicine emerged from a systems-driven approach to disease—to deal in a global or holistic manner with the incredibly complexities of disease. Systems medicine has reached a tipping point and is already beginning to transform the practice of medicine through the emergence of powerful novel technologies (e.g. single-cell analyses and peptide protein-capture agents) and systems-driven strategies (e.g., family genome sequencing, dynamical, disease-perturbed network studies of disease, and systems-driven approaches to blood diagnostics). I will discuss recent results from several of these strategies and technologies.

Three converging opportunities—systems medicine, big/digital data (and its analytics) and patient-activated social networks—are leading to a proactive medicine that is predictive, personalized, preventive and participatory (P4). I will contrast P4 medicine with contemporary evidence-based medicine and discuss its societal implications for healthcare. P4 medicine has two central thrusts—quantifying wellness and demystifying disease.



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