

INTRODUCTION

The View from Building 10

I sit in an office/lab in Building 10, the Clinical Center of the National Institutes of Health—“the NIH”—in Bethesda, Maryland. The yellow arrow shows where I am. Building 10, with the added on Hatfield Clinical Research Center, is the largest research hospital on earth.



Building 10, the NIH Clinical Center, in Bethesda, MD.

Titans of academic medicine have passed through Building 10 during

their training. I came here fresh from internal medicine residency in 1978. I've been here ever since.

I've been in Building 10 so long, it occupies me. In this textbook I'll be presenting autonomic medicine from the viewpoint of a clinical researcher. In Building 10 I've been privileged to develop many clinical laboratory techniques relevant to autonomic disorders and apply them for the first time in patients.

The combination of new technology with the availability of patients who have rare but informative disorders sets the stage for inducing new concepts as the data come in.

In this respect I feel like I am continuing a tradition that goes back to William Harvey, the father of modern medical research, who wrote in 1657, "Nature is nowhere accustomed more openly to display her secret mysteries than in cases where she shows traces of her workings apart from the beaten path; nor is there any better way to advance the proper practice of medicine than to give our minds to the discovery of the usual law of nature, by the careful investigation of cases of rarer forms of disease. For it has been found in almost all things, that what they contain of use or of application, is hardly perceived unless we are deprived of them, or they become deranged in some way."

I hope to share the excitement that comes from making medical scientific discoveries and to convey the historical, cultural, and

societal significance of an extraordinary field of knowledge: the autonomic nervous system.

Patients as a Scientific Resource

The type of research I do is called patient-oriented research. In patient-oriented research you try to understand diseases by studying the patients who have them. You know you're doing patient-oriented research if you shake hands with the subject matter.

Patient-oriented research is rare. Most of biomedical research is basic. The focus is on a particular cellular process or molecule or on biotechnology, without regard to a disease. In disease-oriented research, the goal is to understand diseases, such as by animal models, genetic material from patients, or population studies. Within the domain of patient-oriented research, most of the activity is in designing, conducting, and reporting results of clinical trials of new treatments or in studying the natural history of disease—what happens to the patients over time with standard treatments. Patient-oriented research with the goal of understanding better the mechanisms of diseases is a rarity within a rarity.

Nevertheless, patients constitute a tremendous scientific resource. Only patients can tell you what and how they feel. It's the job of patient-oriented researchers to learn what their patients teach.