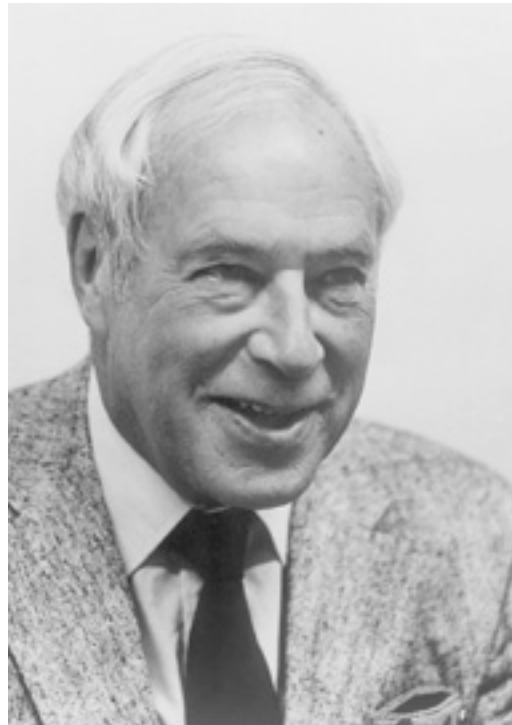


*Interviews with*  
**RUDI SCHMID** M.D., PH.D.

BALANCING SCIENCE AND EDUCATION  
WITHIN THE SCHOOL OF MEDICINE



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THE UCSF ORAL HISTORY PROGRAM  
DEPARTMENT OF THE HISTORY OF HEALTH SCIENCES  
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

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## INTRODUCTION AND INTERVIEW HISTORY

*"I was perceived as a 'research dean,' pushing research, the basic sciences, the National Academy of Sciences. But within a few months—[I] realize[d] that there were serious problems in our educational enterprise. I often had wondered how well we did in teaching, but I had been too far removed to realize how unhappy the students really were. So, I believe my most important contribution as dean was in the field of education, the change-over to a problem-solving, more participatory and more individualized mode of active learning, instead of passive teaching. And we were able to do it without major disturbance or faculty dissent...I believe this was because we made the change gradually, in small steps over five years, and without the public fanfare which accompanied Harvard's' modernization of its medical curriculum. And, most importantly, the students loved it, participated with enthusiasm, and so did the faculty, particularly the basic science faculty, which supported the change without reservation."*

Rudi Schmid, M.D., Ph.D.

Arguably one of the strongest personalities on the UCSF Campus, Dr. Rudi Schmid has covered much ground in his career as physician and clinical investigator. He was born in 1922 in Glarus, Switzerland, to parents who were both practicing physicians in the small mountainous canton. A strong Latin education was the biggest challenge in his early education. While attending gymnasium in Zurich he was elected to membership in the Swiss Academic Ski Club and after meeting several physician-skiers, he entered medical school.

A lively storyteller, with a well-developed sense of humor and irony, Dr. Schmid tells the story of his first involvement with the University of California School of Medicine. It began when he met UC faculty member, Salvatore Lucia, while on a mountaineering trip in Peru, and obtained promise of an "internship" which he thought was a prestigious postgraduate position in the United States. When he arrived in California, he realized that he had a lot to learn. A period of rigorous catch-up followed as Dr. Schmid characteristically read everything he could find, learning English with the help of student nurses, and developing an important friendship with the eminent bacteriologist, Dr. K. F. Meyer, the only other Swiss on campus.

In typical serendipitous fashion, skiing also led Dr. Schmid to his next opportunity—a fellowship at the University of Minnesota with Dr. C. J. Watson, then known as the "father of hepatology." Dr. Schmid chose porphyrins as his first research subject, identifying a promising but unresolved area in biomedicine. He mastered the background literature on the subject and developed an experimental model for human porphyria that led to important studies of hepatic heme and hemoprotein metabolism. He went on to differentiate and classify human porphyria according to cellular expression of

genetic defects. In 1954 he went to Columbia University's "liberal and highly intellectual" biochemistry department and continued his work on porphyrin chemistry, working under Dr. David Shemin on an NIH Fellowship. His work at Columbia was interrupted by a draft call from the US Army, but he was fortunate to obtain a senior fellowship in the NIH as an alternative to regular army service.

In spring of 1955 he arrived in Bethesda, Maryland, and describes a thriving research institute filled with "an unbelievable cadre of top-notch basic scientists" recruited from the best schools of medicine in the nation. His first assignment was to work on lipids in the Heart Institute, but Dr. Schmid determinedly began to work on the puzzle of indirect and direct-reacting bilirubin and by late 1955 he presented his findings on bilirubin glucuronide. In the face of this exciting discovery and later work with characterizing McArdle's disease, Dr. Schmid was given free rein in Bethesda. He notes in retrospect the excellence of the intramural NIH fellowship program which "made academic medicine" in the United States by training research fellows who brought the latest in pathophysiology and molecular biology home to their medical schools.

After two years at the NIH, he moved to the Harvard faculty and the Thorndike Memorial Laboratory under Dr. William B. Castle, where he worked on physiologic studies defining transport, disposition, and neurotoxicity of bilirubin using a crystalline C<sup>14</sup> labeled form of the compound. In 1962 he moved to the University of Chicago where he continued his studies on bile pigment transport and absorption.

In 1966 Dr. Lloyd H. Smith recruited Dr. Schmid to UCSF, charging him with developing a new division of gastroenterology in the Department of Medicine. He arrived in September of 1966 and describes UCSF at that time as "a place to watch...it was evolving." Like all of the new researcher-recruits of the mid-1960s, Dr. Schmid was met with a strong proprietary influence in the School of Medicine and with some difficulty he began to construct a truly academic gastroenterology division. The result was a division that eventually encompassed three hospitals and with private grant support grew to twenty-eight faculty members and forty-five clinical faculty. Within a decade, the division developed strong ties with Pediatrics and Surgery, created the Liver Center, and developed a strong research program. In 1968, continuing work in bilirubin studies, the research team of Raimo Tenhunen, Harvey Marver, and Rudi Schmid discovered and characterized heme oxygenase, the rate-limiting enzyme in the conversion of hemoprotein to bile pigment.

In 1983 Dr. Schmid was appointed dean of the School of Medicine with strong support of the basic science faculty who saw him as an advocate of basic research. Once in office, Dr. Schmid admits with candor, "I had absolutely no idea how to run a medical school," but a crash course in management and the support of key administrative deputies helped him cope with the unforeseen demands of the position. He recounts in detail his actions and motivations as dean, instituting much-needed reform in medical education, and supporting the Program in Biological Sciences (PIBS) as the natural outcome of "the breaking down of departmental fences." A final section of this volume focuses on Dr. Schmid's role as dean in the midst of an escalating AIDS epidemic. Here he gives much

insight into the power and limitations of the dean's office in a major academic medical center.

This detailed series of interviews took place in Dr. Schmid's Parnassus Avenue office over several sessions. Although busy with international travel, Dr. Schmid found time to review the transcripts and search out supplementary materials to support his narrative. During the interview period he graciously donated several cartons of documents related to his activities as dean and senior statesman of the School of Medicine to the UCSF Archives and Special Collections. With Dr. Schmid's cooperation, these interviews give the reader a vivid picture of an active and committed bench scientist coming into maturity in the exciting postwar period in American medical research. A humble intern at the UC School of Medicine in the late 1940s, Dr. Schmid eventually comes full circle to return to Parnassus as a full-fledged researcher and assumes the deanship of the School of Medicine in the crucial 1980s. His personal story reveals much about the story of UCSF as an institution, and of the fulfillment of the promise of postwar American medicine.

*Nancy Rockefeller, Ph.D., January 1998*

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## CONTENTS

*Acknowledgments* v

*Foreword* xv

*Introduction and Interview History* xvi

### EARLY LIFE AND EDUCATION

Childhood in Glarus, Switzerland.....	1
Father's Medical Practice Characterized.....	2
Choice of Medicine as a Career.....	3
Education.....	3
The Curriculum: Importance of Latin.....	5

### MED STUDENT IN NEUTRAL SWITZERLAND

Political Atmosphere in Switzerland in the 1930s.....	5
Importance of Skiing & Mountaineering.....	8
Medical School.....	10
A Medical Student in Neutral Switzerland.....	12
Military Service.....	13
Geographic Isolation in Wartime Europe.....	13
1948: Mountaineering Travels to the Americas.....	15
Recognition of America's Postwar Preeminence.....	15
Planning Travel to America.....	17

### COMING TO UC

Meeting Salvatore Lucia in Lima, Peru.....	18
Coming to the UC School of Medicine.....	20
Impressions of Dr. W. J. Kerr, Chief of Medicine.....	21
Influence of Dr. K. F. Meyer.....	22
Comparison of German and American Medical Education.....	25

### UNIVERSITY OF MINNESOTA

Residency at the University of Minnesota.....	26
---	----

Connections through The Skiing Network .....	28
C. J. Watson .....	30
Education at Minnesota.....	31
Hematology Training with Dr. Dorothy Sundberg.....	32

POSTGRAD PORPHYRIN RESEARCH AT MINNESOTA

Postgraduate Study at the University of Minnesota.....	33
C. J. Watson as Mentor .....	33
Transition to Minnesota .....	34
Choosing a Research Topic .....	35
Producing Uroporphyrin Experimentally .....	36
Classifying the Porphyrias .....	37
A Successful Experimental Model: Sedormid.....	38
Collaboration with Paulo Ortiz de Montellano.....	39
Developing Systematic Research in the Porphyrin Community.....	41
Misconceptions Concerning Porphyrins .....	41
Recognizing Differences in Porphyrin Isomers.....	42
A Personal Sedormid Anecdote .....	43
Hematology Training.....	44
Academic Quality at the University of Minnesota School of Medicine.....	45
Funding Sources for C. J. Watson's Research .....	45
The CIBA Conference on Porphyrins.....	47

BILIRUBIN RESEARCH AT NIH

Senior NIH Fellowship at Columbia.....	47
Citizenship and the Draft .....	49
Gaining a Commission in the Public Health Service.....	50
Characterizing the NIH Facilities, 1955 .....	50
First NIH Job: Work with Dan Steinberg in Cholesterol.....	51
Work On Direct and Indirect Bilirubin.....	52
Presenting the Work on Bilirubin Glucuronide .....	53
Other Discoverers in Britain and Czechoslovakia.....	54
Importance of NIH Training for American Academic Medicine .....	55
Considering Career Positions after the NIH Fellowship.....	56

CHARACTERIZING MCARDLE ' S DISEASE

Decision for the Thorndike Memorial Laboratory, Boston .....	59
--	----

Research and Clinical Work at Boston City Hospital.....	60
Discovery of the Patient with Phosphorylase Deficiency (McArdle's Disease).....	60
Further Experiments on Phosphorylase .....	62
Experiments and Contact with Fritz Lipmann .....	63
Presentation at the NIH Seminar, 1958.....	64
Naming McArdle's Syndrome .....	67

#### THORNDIKE RESEARCH

Bringing Biochemistry to Bear on Medical Disease.....	68
Discussion of Work at the Thorndike .....	68
Lydia Hammaker as Star Assistant .....	69
Organizing a New Pathophysiology Course for Harvard Med Students .....	70
Bringing Skiing to the Thorndike .....	71
Colleagues in Boston .....	71
Going to Chicago .....	72
Competitive Friendship with L. H. Smith at Harvard.....	72
Time to Leave the Thorndike.....	73

#### CHICAGO INTERIM

Characterizing the University of Chicago.....	73
Chicago Troubles .....	74
Presentations of "The Unknown Case" .....	75
Research Projects at Chicago.....	76
Recruitment to UCSF by Dr. L. H. Smith, 1966 .....	76
The Senior Dr. Schmid Visits the Thorndike.....	78

#### GASTROENTEROLOGY IN THE UC DEPT OF MEDICINE

Coming to UCSF: Gastroenterology in the Department of Medicine .....	79
Reform at the VA Hospital .....	81
Building Division Faculty With Grants .....	82
Building Strong Clinical Faculty in Gastroenterology .....	83
Influence of Medicare .....	85
The Liver Center .....	85
Connections with Surgery and Pediatrics .....	85

#### THE RESEARCH AGENDA IN GASTROENTEROLOGY

The Research Agenda .....	86
Research Fellows .....	87

Ivan Diamond and the Gallo Center .....	88
Harvey Marver And Work on Heme Oxygenase.....	89
Hematology Research .....	92
Staying with Bile Pigments.....	93
Impact of Molecular Biology.....	93

THE UCSF BUREAUCRACY

Invitation to the Deanship: The Intrigue of Systems .....	94
Relationships with Basic Scientists .....	95
State of the Cancer Research Institute .....	96
Comparison of CRI with CVRI and Memories of Julius Comroe.....	100
Estimation of Dean Reinhardt's Role in Transforming the School of Medicine .....	102
Campus Politics in the Mid-1960s.....	103
Robert Credé's Role in Changes Within the School of Medicine.....	107
Dealing With the Problem of Space.....	109

THE DEANSHIP

The Schmid Deanship, 1983-1989.....	110
In the Beginning.....	111
Management Training.....	112
Machiavelli's <i>The Prince</i> : The Dean's Handbook.....	114
Developing a Management Staff .....	115
Troubles Within the Student Body .....	116
Student Revolt and Curricular Reform .....	117

PRIORITIZING MEDICAL EDUCATION

A New Educational Policy and Curriculum Committee: Prioritizing Medical Education .....	118
The Problem of Reconfiguring Teaching Responsibilities.....	119
The Leadership Retreat of 1985.....	119

THE GENESIS OF PIBS

The Genesis of PIBS.....	120
Creating Administrative Homes for New Disciplines .....	122
Exclusionary Aspects of PIBS .....	123
Formalizing PIBS: The Lucille P. Markey Trust Grant.....	124
Comments on the Dean's Relationships with Basic Sciences and Clinical Departments .....	126

The Problem of the Dean's Tax.....	127
------------------------------------	-----

DEAN ' S ADMINISTRATIVE CONCERNS

A Closer Look at the Dean's Administrative Concerns, 1980s.....	128
Inequities in The Dean's Tax .....	128
Proposing a New System .....	129
Creating "Glasnost" Among the Faculty.....	130
Reimbursement for Overhead.....	131
Pedagogical Reforms of the mid-1980s.....	132
The Faculty Leadership Retreat Brings Constructive Solutions.....	133
Implementing Educational Reform.....	135
Administrative Reorganization .....	136
The Role of Barbara Gastel in the Reform Process .....	137

PIBS AND INTERDISCIPLINARY BASIC SCIENCES

PIBS: The Program in Biological Sciences .....	139
Emerging Disciplines and Problems of Departmental Reorganization .....	140
J. Michael Bishop Proposes PIBS.....	141
Campus Illusions: The Promise of More Space.....	142
Development of the PIBS Founding Grant.....	142
Impact of the Interdisciplinary Style on Campus .....	144

ADMISSIONS POLICY

Admissions Policy and the Bakke Decision .....	146
Reform of the Admissions Committee .....	147

CYCLES OF REFORM

The Fate of Venerable Organized Research Units in the 1980s .....	149
The CVRI as a Textbook Example .....	150
Reprise of Campus Politics of the mid-1960s: Influence of Julius Comroe.....	153
Dean William O. Reinhardt: The Unsung Hero Recognized.....	153
1988 Review of the CVRI.....	155
Cycles of Reform at SFGH and the VA.....	159
Research Enterprise at Outlying Hospitals .....	162
Surfacing Problems at the VA .....	164

SUMMARY COMMENTS

Summary Comments on the Deanship: 1983-1989 .....	167
---	-----

Contributions of a "Research Dean" .....	168
Problems of Specialization and Primary Care .....	169
Reflections on the Importance of Strong Departments.....	173

PERSPECTIVES ON THE AIDS EPIDEMIC

AIDS : THE INITIAL CHALLENGES

Perspectives on the AIDS Epidemic .....	175
Diverting Scientists to AIDS Research.....	176
Schmid's Meeting with the Gay Leadership, 1984 .....	177
The Decision to Focus AIDS Activities at San Francisco General Hospital.....	179
Jay Levy .....	179
Contacts with Roger Boas.....	183
Basic Research and San Francisco General .....	184

AIDS RESEARCH : A SLOW START

AIDS Research at UCSF: A Slow Start.....	187
The Adult Immunodeficiencies Clinic.....	189
Prejudice and Arrogance.....	191
More on the Meetings with Roger Boas .....	192
Learning to Manage the Deanship .....	195
First California State Appropriation for AIDS Research, 1983 .....	197
The UCSF Dean's AIDS Advisory Board.....	197
UC Systemwide Administration .....	198
Accusations of Funding Delay.....	199

BUILDING INFRASTRUCTURE

The UC Systemwide Task Force on AIDS .....	201
The AIDS Advisory Board, UCSF School of Medicine.....	203
Research on the Possible Association of Hepatitis B and AIDS .....	205
Need for a University Structure in Order to Implement New Programs .....	207
Harold Varmus and J. Michael Bishop.....	208

Index .....	210
-------------	-----

A P P E N D I C E S

- Appendix A: Rudi Schmid, M.D., Ph.D.: CV and Bibliography
- Appendix B: Dean Schmid's Perspective on Medical Education
- Appendix C: Evaluating the Cancer Research Institute
- Appendix D: Faculty Petition to UC President, November 20, 1964
- Appendix E: Planning Documents for the Program in Biological Sciences
- Appendix F: Endorsing the Program in Biological Sciences
- Appendix G: UCSF Anticipates the Vogue in Interdisciplinary Research
- Appendix H: The History of Affirmative Action at UCSF
- Appendix I: Evaluating the Cardiovascular Research Institute
- Appendix J: AIDS and the Deans Office Correspondence, 1983
- Appendix K: AIDS Publicity and the University of California, August 25, 1983