

# EVOLUTION OF CLINICAL PHARMACY

## PREFACE

vii HAK Whitney Jr and MC Nahata

## DEVELOPMENT OF CLINICAL PHARMACY

- 1 **Francke's Legacy—40 Years of Clinical Pharmacy**  
HAK Whitney Jr, MC Nahata, and DJ Thordsen
- 7 **Contribution of *The Annals of Pharmacotherapy* to the Development of Clinical Pharmacy**  
DC McLeod
- 10 **Drug Intelligence—Objectives and Scope (1967)**  
DE Francke
- 11 **The Ostrich Syndrome in American Pharmacy (1972)**  
HAK Whitney Jr
- 12 **Clinical Pharmacy: Reflections and Forecasts**  
WE Smith
- 16 **The Clinical Pharmacist (1967)**  
DE Francke
- 17 **Role of a Pharmacist in Improving Rational Drug Therapy as Part of the Patient Care Team (1967)**  
WE Smith
- 23 **Clinical Pharmacy Practice 30 Years Later**  
CS Ted Tse
- 26 **Pharmacy's Directions: I. Pharmacies and Drugstores (1969)**  
DE Francke
- 27 **Evolvement of "Clinical Pharmacy" (1969)**  
GN Francke
- 34 **Toward Full Professionalization (1986)**  
A Berman
- 36 **The Physician–Pharmacist Interface in the Clinical Practice of Pharmacy (1970)**  
RM Cain
- 39 **The Light at the End of the Dark Tunnel: A Foreign Colleague Views Clinical Pharmacy (1971)**  
G Calder

## PHARMACY EDUCATION

- 41 **A Perspective on 45 Years in Clinical Pharmacy Education**  
RP Rapp
- 44 **Maturing of Pharmaceutical Education (1976)**  
JV Swintosky
- 52 **Pharmacy Continuing Education: 40 Years Ago to Now**  
PH Vlases
- 55 **Study Commission Report on Pharmacy: Promised Land or Tower of Babel? (1977)**  
WH Campbell
- 59 **Point/Counterpoint: A Rebuttal to the Universal PharmD Proposal (1977)**  
MM LaFranco, RP Tannenbaum, and ML Cannon
- 62 **A Golden Opportunity: Reflections of the First Intern**  
HB Levy

## PHARMACY PRACTICE

- 64 **Prescribing Authority for Pharmacists, Florida Style: A Home Run or a Swing and a Miss?**  
PL Doering
- 70 **Assessment of the Florida Pharmacist Self-Care Consultant Law Using Patient Profile and Prescription Audit Methods (1990)**  
HJ Eng and WC McCormick
- 75 **Ethics, Law, and the Emergence of Pharmacists' Responsibility for Patient Care**  
WE Fassett
- 79 **Need to Develop a Legal and Ethical Base for Pharmaceutical Care (1994)**  
RA Hutchinson and GT Schumock
- 82 **Patient Oriented Pharmacy Practice—Does It Include Traditional Services? (1975)**  
RP Rapp
- 83 **Prescribing and Drug Ingestion Symbols and Substances (1976)**  
ED Pellegrino
- 90 **Clinical Pharmacy and Medication Safety**  
C Christen
- 92 **Drug Utilization—A Public Health Problem (1970)**  
DC Brodie
- 93 **The Interdisciplinary Nature of Medication Errors (1967)**  
DE Francke
- 94 **Role of the Pharmacist in the Community: From Corner Drug Store to Corner Pharmacy in 40 Years with Friends Like Harvey**  
JD Robinson
- 97 **The Human Side of a Pharmacy Resident (1979)**  
HAK Whitney Jr
- 98 **Let Us Now Praise Famous Men... (1983)**  
HAK Whitney Jr
- 101 **A Man's Creation Is a Living Memorial (1986)**  
HAK Whitney Jr
- 102 **An Improved Concept for Hospital Pharmacy Service: Memorial Hospital of Long Beach (1967)**  
JA Oliver
- 106 **Office-Based Pharmacy Practice: Past, Present, and Future**  
EV White and DA Latif
- 112 **Expanding Clinical Pharmacy Services in the Community (1978)**  
DE Francke
- 113 **Meddlesome Medicine and Rational Therapeutics (1975)**  
ED Pellegrino
- 118 **Women in Pharmacy 2006: A Good Match**  
HB Levy
- 121 **Salute to Women Pharmacists (1975)**  
DE Francke
- 122 **The Sleeping Women (1975)**  
MA Kimble

- 123 **Women's Role in Pharmacy Practice in the Year 2000 (1975)**  
JM Slining
- 128 **Special Strengths of the Woman Practitioner (1967)**  
A D'Angelo

## CLINICAL SCIENCES

### DRUG INTERACTIONS

- 130 **Evolution of Drug–Drug Interactions: A Personal Viewpoint**  
EA Hartshorn
- 132 **Drug Interaction: 1. General Considerations (1968)**  
EA Hartshorn
- 135 **Drug Interaction: 2. How Drugs Interact (1968)**  
EA Hartshorn

### PHARMACODYNAMICS AND PHARMACOKINETICS

- 143 **The Development of Pharmacodynamics as a Pharmaceutical Science: A Personal Perspective**  
G Levy
- 147 **Biopharmaceutics Influence of Formulation on Therapeutic Activity: 1. Definitions, Scope and Relationship to Gastrointestinal Physiology (1968)**  
JG Wagner

### PHARMACOECONOMICS

- 152 **Pharmacoeconomics: Historical Perspective**  
JL Bootman, WF McGhan, and RJ Townsend
- 154 **Proposed Drug–Drug Cost Effectiveness Methodology (1987)**  
JP Gagnon and JT Osterhaus
- 159 **The Economics of Adverse Drug Reactions—Case Studies (1967)**  
JA Visconti and MC Smith

### PHARMACOEPIDEMOLOGY

- 167 **The Beginnings of Pharmacoepidemiology in *The Annals***  
AG Hartzema
- 169 **Introduction to Pharmacoepidemiology (1987)**  
AG Hartzema, MS Porta, and HH Tilson

### PHARMACOGENETICS AND PHARMACOGENOMICS

- 171 **Emergence and Evolution of Pharmacogenetics and Pharmacogenomics in Clinical Pharmacy over the Past 40 Years**  
DS Streetman
- 175 **Pharmacogenetics: Part I (1992)**  
M Gibaldi
- 181 **Pharmacogenetics: Part II (1992)**  
M Gibaldi

## THERAPEUTIC SPECIALTIES

- 188 **Specialization in Pharmacy (1974)**  
DE Francke

### ALZHEIMER'S DISEASE

- 189 **Alzheimer's Disease: Will Advances Made in the Past Turn the Tide?**  
TP Semla
- 192 **Alzheimer's Disease: Clinical Features, Pathogenesis, and Treatment (1984)**  
KL Rathmann and CS Conner

## ANTICOAGULATION

- 198 **Advances in Anticoagulation Management: The Role of Pharmacy**  
MA Smythe
- 201 **Cost-Justification of a Clinical Pharmacist–Managed Anticoagulation Clinic (1985)**  
DR Gray, SM Garabedian-Ruffalo, and SD Chretien

## CARDIOLOGY

- 207 **The Wild Ride: Cardiology and Clinical Pharmacy 1967–2005**  
LM Lopez
- 209 **Interactions of Cardiac Drugs (1970)**  
EA Hartshorn
- 213 **Bioavailability of Digoxin (1972)**  
DE Francke

## COMPLEMENTARY AND ALTERNATIVE MEDICINE

- 214 **The History of Complementary and Alternative Medicine in the US**  
CC Rosenbaum
- 219 **Perspectives on Alternative Medicine (1997)**  
SM Abdel-Rahman and MC Nahata
- 223 **Pharmacists' Knowledge and Attitudes Toward Herbal Medicine (2000)**  
ZG Chang, DT Kennedy, DA Holdford, and RE Small

## CRITICAL CARE

- 228 **Critical Care**  
JF Dasta
- 230 **Critical Care Therapeutics: A Frontier for Clinical Pharmacy (1982)**  
JF Dasta
- 232 **The Value of Emergency Care Situations in the Clinical Education of a Pharmacist (1974)**  
RP Rapp, JJ Piccoro, and JV Swintosky

## DIABETES

- 237 **Diabetes**  
RK Campbell
- 239 **Diabetic Patient Compliance as a Function of Patient Counseling (1979)**  
MF Powell, V de P Burkhart, and PP Lamy

## DRUG INFORMATION

- 245 **A Personal View of the History and Future Direction of Drug Information**  
DF Thompson
- 247 **Education and Training of the Drug Information Specialist (1967)**  
CA Walton

## GASTROENTEROLOGY

- 252 **Advances in Gastrointestinal Pharmacotherapy—Who Would Have Thought?**  
RR Berardi
- 255 **Contemporary Issues in Gastrointestinal Diseases for Clinical Pharmacists (1989)**  
VA Skoutakis

## GERIATRICS

- 256 **Reflections on Geriatric Pharmacy Practice: The Times They Are a Changin'**  
JC Delafuente

## GERIATRICS (CONTINUED)

- 258 **Drug Utilization Review in an Extended Care Facility (1974)**  
KN Letourneau

## IMMUNIZATION

- 265 **Immunization 1967–2006: Implementation Keeping Pace with Invention?**  
JD Grabenstein
- 267 **Screening Adults for Multiple Immunization Needs (1988)**  
JD Grabenstein and RR Watson

## INFECTIOUS DISEASES

- 268 **Pharmacy Infectious Diseases Practice**  
RP Rapp
- 271 **Combinations of Antibiotics (1968)**  
DE Francke

## NEPHROLOGY

- 272 **Nephrology Pharmacy: Historical Reflections and Future Challenges**  
MS Joy and GR Matzke
- 275 **Nephrology Pharmaceutical Care Preceptorship: A Programmatic and Clinical Outcomes Assessment (2000)**  
GR Matzke, WL St Peter, TJ Comstock, and EF Foote

## NEUROLOGY

- 282 **Neurology and Neurosurgery Clinical Pharmacy Practice: Ignorance, Phobia, or Progress?**  
TE Welty
- 285 **The Role of Clinical Pharmacists in an Epilepsy Clinic (1978)**  
JP Allen, TM Ludden, and CA Walton

## NUTRITION

- 287 **Advancement of Nutrition Support in Clinical Pharmacy**  
JM Mirtallo
- 291 **A Key to the Literature of Total Parenteral Nutrition (1983)**  
JM Mirtallo
- 293 **The Availability of Trace Elements in Intravenous Hyperalimentation Solutions (1977)**  
CA Shearer and RC Bozian

## OBESITY

- 298 **The Obesity Pandemic—How Did We Get Here?**  
M Malone
- 300 **Update on the Pharmacotherapy of Obesity (1998)**  
J Cerulli, BM Lomaestro, and M Malone

## ONCOLOGY

- 313 **State of Oncology Pharmacotherapy**  
MT Holdsworth
- 315 **Counseling the Oncology Patient (1984)**  
E Du Vall and SD Lash

## PEDIATRICS

- 317 **Evolution of Pediatric Clinical Pharmacy**  
MC Nahata

## PEDIATRICS (CONTINUED)

- 319 **Therapeutic Orphans—Everybody's Business (1968)**  
HC Shirkey

## PSYCHOPHARMACOLOGY

- 320 **Clinical Psychopharmacology: Advances and Challenges from 1965 to 2006**  
ML Crismon

## PULMONARY

- 322 **Pulmonary Clinical Pharmacy Practice**  
HW Kelly
- 324 **Antibiotic Use in Cystic Fibrosis (1984)**  
HW Kelly and C Lovato
- 336 **Frequent Toxicity from IV Aminophylline Infusions in Critically Ill Patients (1977)**  
L Hendeles, L Bighley, RH Richardson, CD Hepler, and J Carmichael

## RHEUMATOLOGY

- 343 **Evolution of Clinical Pharmacy in the Practice of Rheumatology**  
AK Rowley, BH Resman-Targoff, CA Marra, and F Pucino
- 346 **Economic Impact of Pharmacists' Interventions with Nonsteroidal Antiinflammatory Drugs (2003)**  
AP Guignard, S Couray-Targe, C Colin, and G Chamba

## TOXICOLOGY

- 353 **Pharmacists as Clinical Toxicologists: Reflections on Evolution, Challenges, and Opportunities**  
PA Chyka
- 357 **A Pharmacist-Based Toxicology Service (1978)**  
RW Roberts and WL Russell

## TRANSPLANTATION

- 363 **Transplant Pharmacy: 30 Years of Improving Patient Care**  
GJ Burckart
- 366 **Cyclosporine Monitoring (1986)**  
GJ Burckart, DM Canafax, and GC Yee

## PHARMACY TECHNICIANS

- 370 **Setting a Solid Pharmacy Foundation**  
JM Keresztes
- 373 **Role of Pharmacy Technicians in the Development of Clinical Pharmacy**  
JM Keresztes
- 378 **Pharmacy Technicians Establish an Independent National Organization (1981)**  
HAK Whitney Jr
- 379 **Pharmacy Technologists (1974)**  
DC McLeod
- 379 **The Education and Utilization of Pharmacy Supportive Personnel (1975)**  
HAK Whitney Jr
- 381 **The Pharmacy Technologist: A New Assistant for the Clinical Pharmacist (1974)**  
HAK Whitney Jr
- 382 **Can Professional Time Be Better Used? (1970)**  
WM Frazier

- DEVELOPMENT OF THE AMERICAN COLLEGE OF CLINICAL PHARMACY
- 383 **The Journal for Drug Therapy Decision Makers (1979)**  
HAK Whitney Jr
- 384 **Pharmacy and Pharmacology: Importance of Collaboration at the Clinical Level (1979)**  
HAK Whitney Jr
- 385 **American College of Clinical Pharmacy (1979)**
- 387 **The Creation of the American College of Clinical Pharmacy (1979)**  
HAK Whitney Jr
- 388 **American College of Clinical Pharmacy (1980)**  
KL Kelly
- 390 **American College of Clinical Pharmacy (1980)**  
KL Kelly
- 391 **American College of Clinical Pharmacy: Why? (1980)**  
GP Provost, KL Kelly, MA Riddiough
- 393 **Clinical Pharmacy and Specialization (1980)**  
GL Stimmel
- 394 **American College of Clinical Pharmacy (1980)**  
KL Kelly
- 395 **American College of Clinical Pharmacy (1981)**  
KL Kelly
- 396 **American College of Clinical Pharmacy (1982)**  
PH Vlasses
- 397 **Clinical Pharmacy: Two Steps Forward, One Step Back (1983)**  
PL Doering
- 399 **American College of Clinical Pharmacy: Quo Vadis? (1983)**  
PH Vlasses and GL Stimmel
- 401 **American College of Clinical Pharmacy (1984)**  
PH Vlasses and SL Nightingale
- 402 **Definition of Clinical Pharmacy as a Specialty in Clinical Practice (1985)**  
RM Elenbaas, WE Evans, PP Gerbino, KL Kelly, WJ Kinnard Jr, WA Miller, PF Parker, DG Perrier, and JH Rodman
- 404 **An Official Journal for the American College of Clinical Pharmacy (1985)**  
HAK Whitney Jr
- 405 **Financial Support for Clinical Pharmacy Services (1986)**  
MC Nahata
- 406 **A Model for Inpatient Clinical Pharmacy Practice and Reimbursement (1986)**  
RA Hutchinson, DP Vogel, and KW Witte
- 410 **Specialization in Clinical Pharmacy: Update 1987**  
DC McLeod
- 413 AUTHOR INDEX