

## PREFACE

The industrial pharmaceutical R & D Symposium on Transdermal Controlled Release Medication took place in January of 1982, three months following the approval of three transdermal therapeutic systems by the Food and Drug Administration for marketing in the United States. This timely symposium attracted more than 180 participants in spite of the unexpected snow storm during those two days of conference. Approximately 82% of these dedicated participants were from the pharmaceutical industry and another 5% were from financial institutions.

As the industrial scientist who has been actively involved in the conceptualization, research and development of controlled release drug delivery systems, including one of the three marketed transdermal therapeutic systems, for more than 10 years and also as the newcomer in the academic community who is committed to bridging the R & D activities in both industry and academia, this first symposium represents one of the ideal formats for a scientific and educational symposium. It was organized to consist of 4 sessions:

- A) Logic of Transdermal Controlled Drug Administration
- B) Fundamentals of Transdermal Controlled Drug Administration
  - 1) Physiological and pathological considerations
  - 2) Physicochemical considerations
  - 3) Pharmacokinetic and pharmacodynamic considerations
- C) Development and Assessment of Transdermal Drug Delivery Systems
  - 1) Controlled release of scopolamine for prophylaxis of motion sickness
  - 2) Controlled release of nitroglycerin for treatment of angina pectoris

- a) Alza-Ciba approach (Transderm-Nitro System)
  - b) Key approach (Nitro-Dur System)
  - c) Searle approach (Nitrodisc System)
- D) Future trends in transdermal controlled release medication
- 1) Regulatory considerations
  - 2) Potential development and exploration
    - a) Transdermal delivery of pro-drugs
    - b) Development of transdermal therapeutic systems
    - c) Enhancement of transdermal drug administration

These 12 lectures were delivered in a logical sequence by one regulatory officer, Dr. B. E. Cabana of the Food and Drug Administration; four academic researchers, Professor W. I. Higuchi of the University of Utah (formerly with the University of Michigan), Professor A. M. Kligman of the University of Pennsylvania, Professor J. L. Zatz and myself of Rutgers University; and seven industrial scientists, Dr. S. K. Chandasekaran of Abcor, Inc. (formerly with Alza Research), Dr. W. R. Good of Ciba-Geigy Corporation, Dr. A. Karim of G. D. Searle & Co., Dr. W. O. McClure of Nelson R & D, Dr. V. F. Smolen of Pharmacontrol Corporation and Dr. J. E. Shaw of Alza Corporation. (Dr. A. D. Keith of Key Pharmaceuticals, Inc. was, unfortunately, prevented from participating at the symposium by the heavy snow storm.) Their lectures were excellent and well received by the participants.

We were very pleased with the quality and outcome of the symposium and the positive feedback from the enthusiastic participants, even though the symposium had less than five months to be organized, from conceptualization to completion. As the organizer, I wish to express my thanks for the assistance of Dean J. L. Colaizzi, Professor W. I. Higuchi, Dr. V. F. Smolen, Professor N. G. Lordi and Professor B. J. Sciarrone. The assistance of Ms. J. A. Kulesza and Mr. J. Hegelmann from Rutgers College of Pharmacy's extension office was greatly appreciated. Without their invaluable inputs and assistance, a successful symposium like the one we had would not have been possible.

This special symposium issue is published in response to the request from 93% of the conference evaluation forms received from the symposium participants. Each of the lecture materials published in this special symposium issue has been reviewed and accepted for publication on its own scientific merit using the publication guidelines and standards established for this journal. So, it has taken a slightly longer journey from the conference to the publication than other symposium publications do. This peer review process is critical to insure the quality of scientific articles.

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