

Celebrating 50 Years of Excellence in DMD Science

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This issue of *DMD* marks the beginning of a year-long celebration of the 50th anniversary of the journal. The content of the first (Jan–Feb 1973) issue of *DMD* consisted entirely of the proceedings of the Second International Symposium on Microsomes and Drug Oxidations (MDO, <https://MDO.pharmacy.arizona.edu>), which took place in July 1972 at Stanford University, Stanford, CA, USA. The issue contained 64 articles and was literally a “book,” as it was referred to in the *Preface* of that issue, written by Ronald W. Estabrook, James R. Gillette, and Kenneth C. Leibman. The contributors to that issue included most, if not all, of the major figures in the drug metabolism field from that period. The *Preface* also credited the First MDO meeting, held in 1968 at the National Institutes of Health, Bethesda, MD, USA, for fueling the rapid growth of the scientific literature in the field of drug metabolism, which in turn led to the establishment of this new journal. The journal was titled *Drug Metabolism and Disposition: the biological fate of chemicals*, until 2000, when it became just *Drug Metabolism and Disposition (DMD)*.

The *Editorial* to launch the new journal by the founding *Editor*, Kenneth C. Leibman, was published in the second *DMD* issue (Leibman, 1973). The *Editorial* elegantly reviewed the history of drug metabolism studies, quoting Paracelsus and recounting the progression from Buchheim’s student Schmiedeberg to E. K. Marshall, R. T. Williams, and then B. B. Brodie and “the renaissance of interest in drug metabolism and disposition.” Dr. Leibman credited “the development of still more powerful techniques for the separation and characterization of drugs and their metabolites, and for probes of their molecular interactions with cellular constituents” for the “remarkable advances in our understanding of the fate of foreign chemicals in living matter and of the mechanisms of their biotransformation and translocation,” as well as the pressure to institute “new journals devoted exclusively to this subdiscipline.”

The inaugural *Editorial* also expressed a wish to make *DMD* “an instrument of greatest usefulness to the community of workers in the field.” This noble wish has been an important guiding principle for the journal as it has stood the test of time and become the leading journal in the DMD field. Over the past 50 years, *DMD* has published nearly 9000 papers. It is the journal of choice for publishing first-rate fundamental as well as translational DMD research, where new trends, regulations, and concepts are introduced, differing opinions are debated, and important works from PhD dissertations and new drug approval pipelines are archived.

The topics covered by *DMD* have evolved along with the rapid changes in the broader biomedical science fields. However, the focus on drug metabolism and disposition has remained true through the past 50 years. Frequency analysis of relevant title words of all papers published in the first 5 years and those published in the past 5 years suggests a dominance of studies on “rats” and “microsomes” in the early years and of studies on “drug”, “humans,” “transport,” and “pharmacokinetic models” in recent years. The words “metabolic” and “cytochrome/CYP” studies appeared to be equally well-represented in both periods (Fig. 1).

The success of *DMD* can be attributed in part to the vision and leadership of its Editors. A total of eight individuals have had the opportunity to lead the journal in the last 50 years, as shown in Table 1. The journal’s success is also due to the combined efforts of everyone else involved, the Associate Editors (AEs), Editorial Advisory Board (EAB) members, reviewers, staff, ASPET Publications Committee and Council, and, perhaps most importantly, our authors, who placed their trust in the journal. Fig. 2 displays the last names that appeared 50 times or more as authors of a *DMD* article in the past 50 years. Particularly noteworthy are four authors who have published 80 or more papers in *DMD* (Table 2). Of these, Scott Obach is a current AE; Miki Nakajima is a current EAB member; Yuichi Sugiyama is being featured in a *DMD* special section on “Mechanism-Based Predictive Methods in Drug Discovery and Development” in 2023; and Curtis Klaassen was featured in a recent special section on “Bile Acids, Drug Metabolism, and Toxicity (<https://dmd.aspetjournals.org/content/50/4/422>). A token of appreciation will be presented to each of them as “Most Prolific Author in *DMD*” in the near future. Congratulations!

A number of special sections and commissioned articles are planned as a special 50th Anniversary Celebration Collection. The current (January) issue contains five papers from this collection. Fred Guengerich wrote an insightful historical as well as future perspective titled “Drug Metabolism: A Half-Century Plus of Progress, Continued Need, and New Opportunities” (Guengerich, 2022). Five former *DMD* editors (Edward T. Morgan, Raymond F. Novak, James R. Halpert, Eric F. Johnson, and Jeffrey C. Stevens) have worked together and contributed unique and valuable perspectives on the evolution of the journal from 1994 to 2020 (Morgan et al., 2022). James R. Halpert and his former associates also provided a historical perspective on “Four Decades of CYP2B Research: From Protein Adducts to Protein Structures and Beyond” (Roberts et al., 2022). Hiroshi Yamazaki and Makiko Shimizu wrote a mini-review on “Species Specificity and Selection of Models for Drug Oxidations Mediated by Polymorphic Human Enzymes” (Yamazaki and Shimizu, 2022). Kerry B. Goralski and colleagues provided an ASPET symposium report on the very timely topic of “COVID-19 Vaccines and the Virus: Impact on Drug Metabolism and Pharmacokinetics” (McColl et al., 2022).

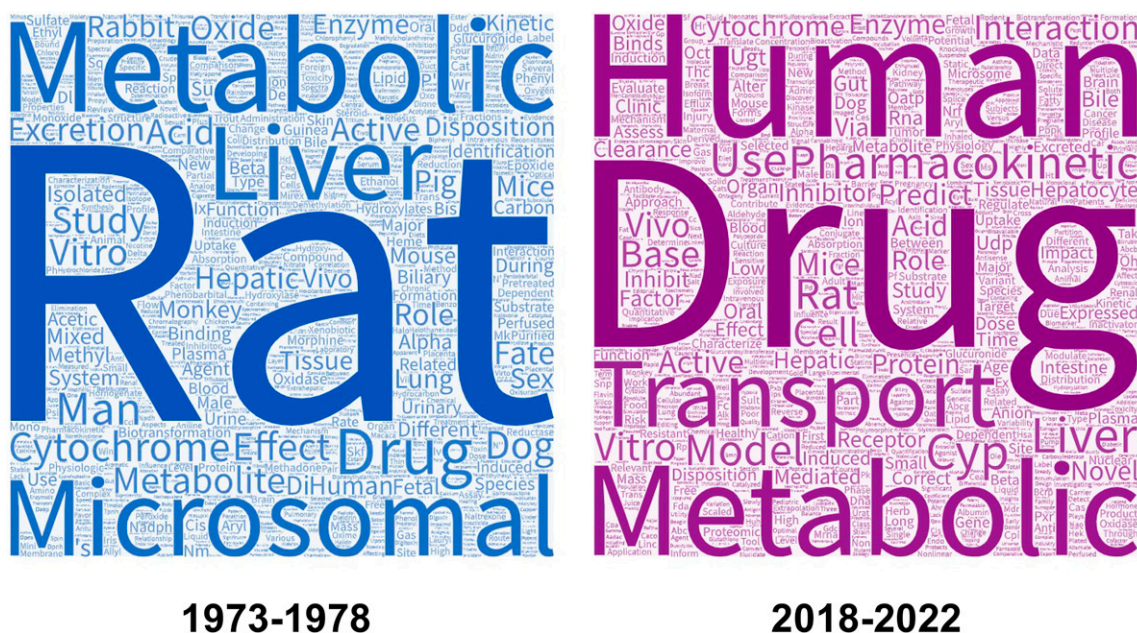


Fig. 1. Frequency analysis of relevant title words. The word clouds were created at wordart.com. Font size is proportional to frequency of appearance of a given word in the titles of all *DMD* papers published in the first 5 years (1973–1978; 490 papers) and those published in the past 5 years (2018–May 2022; 554 papers).

Other articles for the *50th Anniversary Celebration Collection* will include a planned Special Section on “Drug Metabolism and Acetaminophen-Induced Liver Injury,” to be contributed by Jose Manautou, Hartmut Jaeschke, and colleagues, which will celebrate the publications of two pioneers of the field, Bernard B. Brodie (after whom ASPET’s *Bernard B. Brodie Award in Drug Metabolism and Disposition* is named) and James Gillette (after whom the ASPET’s *James R. Gillette Award for DMD* papers in “Drug Metabolism” or “Disposition and Pharmacokinetics” is named). Additionally, the current AEs plan to provide their perspectives on specific subjects in their areas of expertise, and current EAB members and colleagues plan to provide a “Special Section on New and Emerging Areas and Techniques in DMD.” Several other special sections are also planned on “Major Breakthroughs & Contributions of DMD Science to Drug Discovery & Development”, “Drug Metabolism and Precision Medicine”, “Xenobiotic Receptors”, “Physiologically Based Pharmacokinetics Models”, “Intestinal Drug Metabolism”, and “Pediatric Drug Metabolism.” These and other commissioned articles will be published in various 2023 *DMD* issues according to their time of submission.

This promises to be a very exciting year for everyone associated with *DMD*. I am thrilled to kick off the 50th anniversary celebration. It is also worth noting that the publishing landscape is far different now than 50 years ago. To ensure continued success for the next 50 years, *DMD* will have to overcome many challenges that are facing most society journals today, such as the pressure to chase after higher impact factors, the much-increased competition for manuscripts, the difficult decision between subscription model and open-access model in journal finances, and the lure of commercialization for the sake of perceived long-term stability. Personally, I believe that these challenges are surmountable and bring opportunities for improvement and growth. I trust that all AEs, EAB members, authors, and the *DMD* community at large will redouble their efforts to support the journal, submit their best work to *DMD*, do their best to protect the quality of science and reputation of the journal, and strive to stay at the forefront of current developments in the field as we move forward.

TABLE 1
DMD editors

Years	Editor in Chief
1973–1982	Kenneth C. Leibman
1983–1993	Vincent G. Zannoni
1994–1999	Raymond F. Novak
2000–2005	James R. Halpert
2006–2011	Eric F. Johnson
2012–2017	Edward T. Morgan
2018–2020	Jeffrey C. Stevens
2021–present	Xinxin Ding

Fig. 2. Author last names with 50 or more appearances in *DMD* articles between January 1973 and May 2022. A total of 79 last names were found that met the selection criteria. Notably, some last names represented multiple individuals, which foiled my attempts to identify “the top 50 *DMD* authors” based on the number of papers published in *DMD*. I hope that authors who have 50 or more *DMD* papers let the journal know so we can publish a more accurate list later and express our appreciation accordingly.

Amin	Cui	Ho	Klaassen	Ma	Rodrigues	Unadkat	Yang
Benet	Davis	Houston	Kobayashi	Martin	Sawada	Wang	Yokoi
Bi	Di	Hu	Kumar	Miller	Shen	Watanabe	Yu
Brouwer	Ding	Huang	Kusuhara	Morris	Smith	Williams	Zhang
Brown	Fischer	Humphrey	Lai	Nakajima	Sugiyama	Wong	Zhao
Chan	Gao	Jiang	Lee	Nelson	Sun	Wu	Zheng
Chang	Gonzalez	Johnson	Li	Obach	Suzuki	Xie	Zhong
Chen	Green	Jones	Lin	Pang	Tang	Xu	Zhou
Cheng	Guo	Kato	Liu	Park	Thomas	Yamamoto	Zhu
Chiba	Hall	Kim	Lu	Robert	Tran	Yamazaki	

TABLE 2
Most prolific *DMD* authors in the past 50 years

Name	Number of <i>DMD</i> papers	Years publishing	Current affiliation
Sugiyama, Y.	104	1982–2022	Josai International University, Tokyo, Japan
Klaassen, C. D.	86	1975–2022	University of Kansas, Kansas City, KS, USA
Nakajima, M.	83	1996–2022	Faculty of Pharmaceutical Sciences, Kanazawa University, Kanazawa, Japan
Obach, R. S.	81	1990–2022	Groton Laboratories, Pfizer Inc., Groton, CT, USA

I also want to hear from you, our readers and authors. Please send your thoughts, comments, and ideas to me at xding@arizona.edu. Together we can ensure continued success for the next 50 years and beyond.

Xinxin Ding
Editor-in-Chief

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