

MKelley Consulting L.L.C.  
1533 Glenmont Lane  
West Chester, Pa 19380  
610-436-0443  
mmk48@comcast.net

**PHARMACEUTICAL EXPERIENCE:**

**Centocor R&D, Inc. (J&J)**  
**Clinical Pharmacology & Experimental Medicine**  
Radnor, Pa 19087  
Director of Compliance (2004-2007)

- Managed the GLP Compliance and planning functions to support the Pharmacokineticists and Bioanalysts who perform Pharmacokinetic, Immune response, Biomarker and Cell-based laboratory analyses for both non-clinical and clinical studies.
- Focused particularly on the acceptable validation of ligand binding assays (e.g., ELISA, Bioveris, MSD, Flow, cell-based assays).
- Led Departmental teams that focused on assay development and validation, SOP development, resource planning, process improvement, Watson LIMS implementation, e-Archiving and GLP and Part 11 compliance issues.
- Participated on cross-department and cross-company teams as appropriate to address and improve compliance processes.

Currently co-chair and member of steering committee for the AAPS Incurred Sample Re-analysis Meeting to be held in Crystal City, Va, February 2008.

Currently co-editing and contributor to Wiley Publication: Validation of Cell-Based Assays in a GLP Setting, A Practical Guide

**J&J Pharm R&D**  
Raritan, NJ 08869  
Associate Director (2001-2004)  
Research Manager (1999-2001)

- Managed a staff of four research scientists, including training, development and performance reviews. Supported clinical and preclinical bioanalysis full development programs (e.g., EPO, PDGF, Atosiban, Azaline B and TPO mimetic [large molecules] in-house and a COX-2 inhibitor [small molecule] at a CRO in support of pharmacokinetics).
- Assigned and tracked multi-million dollar contracts to support bioanalysis for Immunoassays and LCMS.
- Active member of global clinical project teams for drug development projects.
- Supported Phase IV pharmacovigilance for immunogenicity issues in US and Europe
- Validated new assays for EPO and EPO antibodies for monkey, human and rat matrices (reduced volume) and for PDGF, platelet factor 4 and PDGF antibodies.
- Developed and validated a bioassay to determine neutralization of EPO activity by antibodies.
- Contributed to IND, NDA, and BLA submissions.
- Participate as active member of AAPS (Biotechnology section): Executive Committee member of AAPS Focus Group responsible for developing guidelines for validation of immunoassays to support preclinical pharmacokinetic studies and neutralization assays; planning committees for 2000 Crystal City Meeting on Validation and for the Bioanalytical Meetings at the Land of Lakes Conference.

Group Leader (1994-1999)

- Managed a staff of three to five research scientists, including training and performance reviews.
- Conducted the analysis of clinical and preclinical EPO, PDGF, Azaline B, and Atosiban (proteins and peptides) samples.
- Interacted with colleagues across all divisions of Drug Discovery and Development.
- Interacted with CROs to establish new technologies for bioanalysis.
- Developed a program to expedite early Drug Metabolism with sample analysis to establish proof of concept at CRO.
- Responsible for contracting bioanalysis for drug development.
- Prepared bioanalytical sections of NDA submissions

**STERLING WINTHROP**  
Collegeville, PA 19426

Principal Research Investigator (1993-1994)

- Managed a staff of three research scientists, including training and performance review.
- Interacted with colleagues in Immunopharmacology, Neurobiology, Cardiovascular Biology, Inflammation and Molecular Biology to establish new approaches for drug discovery and development.

Selected Accomplishments:

- Identified a polyclonal antibody, which selectively recognizes precursor IL1 B and designed an ELISA to support discovery-screening efforts, which reduced assay time from three days to five hours.
- Developed and characterized four monoclonal antibodies to the breast carcinoma antigen, CerbB-2, which partially agonize the receptor.
- Prepared panels of antibodies based on peptide sequences. The antibodies recognize, blot, and/or immunoprecipitate the native proteins.

Senior Research Investigator (1987-1993)

- Built the antibody/assay resource function within Eastman Pharmaceuticals (Sterling).
- Developed research collaborations with senior investigators in Drug Discovery.

Selected Accomplishments:

- Led independent research project to identify and compare best commercially available adjuvants for antibody production.
- Investigated optimal condition to switch IgMs to IgGs.
- Identified efficient isolation procedures for murine IgM.
- Implemented APRT-fusion system for hybridoma production.

PRIOR EXPERIENCE:

**E. I. DUPONT deNEMOURS & CO.** (1981-1987)  
Glenolden, PA

Selected Accomplishments:

Produced polyclonal antibodies to chloresulfuron and established an ELISA quantitate residual herbicide in soil. Produced polyclonal antibodies to human IL1B prior to it being purified to homogeneity and developed an efficient Western Blot protocol and transferred technique to several labs.

**UNIVERSITY OF PENNSYLVANIA**  
Department of Hematology/Oncology (1977-1981)  
Department of Physiology (1976-1977)

**TIERARZTLICHEN HOCHSCHULE** (1975-1976)  
Hannover, Germany

**UNIVERSITY OF PENNSYLVANIA** (1970-1975)  
School of Veterinarian Medicine

EDUCATION: West Chester State University  
West Chester, Pa  
M.A. Biology (1974)

Gwynedd Mercy College  
North Wales, Pa  
B.A. Biology (1970)

PROFESSIONAL ORGANIZATIONS:  
American Association of Pharmaceutical Scientists  
Drug Information Agency

**PATENT**

6,818,613	Aqueous Sustained-release formulations of proteins	2004-11-16
7,282,480	Aqueous Sustained-release formulations of proteins	2007-10-16

## RECENT PUBLICATIONS

1. **Kelley, M** and DeSilva, B, Key elements of bioanalytical method validation for macromolecules, AAPS Journal. 9(2): E156-63, 2007
2. **Kelley, M** and DeSilva, B. Analytical Considerations for Immunoassays for Macromolecules, 2007, pp 573-584, Handbook of Pharmaceutical Biotechnology, Shayne Cox Gad, ed. (Wiley & Sons Pub.).
3. Smolec, JM, DeSilva, B., Smith, W., Weiner, R., **Kelley, M.**, Lee, B., Khan, M., Tacey, R., Hill, H., and Celnicker, A., Bioanalytical Method Validation for Macromolecules in Support of Pharmacokinetic Studies (Workshop Report), Pharm Res, 2005, Vol 22, No 9, pp 1425-1431.
4. **Kelley, Marian**, Cooper, Cianna, Matticoli, Aileen, and Greway, Anthony, The detection of anti-erythropoietin antibodies in human serum and plasma. Part II. Validation of a semi-quantitative <sup>3</sup>H-thymidine uptake assay for neutralizing antibodies, Journal of Immunological Methods, [Volume 300, Issues 1-2](#) May 2005, Pages 179-191.
5. Xenocostas, Anargyros, Farrell, Francis, Cheung, Wing, **Kelley, Marian**, Zakszewski, Cindy, The Pharmacokinetics of Erythropoietin in the Cerebrospinal Fluid after Intravenous Administration of Recombinant Human Erythropoietin, Accepted: Eur J of Clin Pharmacology 2005, (61): 189-195.
6. Maple, Laura, Lathrop, Rebecca, Bozich, Shari, Harman, Warren, Tacey, Richard, **Kelley, Marian** and Daniilovitch-Miagkova, Alla, Development and validation of ELISA for herceptin detection in human serum, Journal of Immunological Methods Vol 295/1-2 pp 169-182.5. Tacey, R., Greway, A., Smiell, J., Power, D.,
7. Kromminga, A., Daha, M., Casadevall, N., **Kelley, M.**, The detection of anti-erythropoietin antibodies in human serum and plasma Part I. Validation of the protocol for a radioimmunoprecipitation assay. JIM, 283, 2003 pp317-329.
8. DeSilva, B., Smith, W., Weiner, R, **Kelley, M.**, Smolec, J., Lee, B., Khan, M., Tacey, R., Hill H., and Celnicker, A. Recommendations for the Bioanalytical Method Validation of Ligand-binding Assays to Support Pharmacokinetic Assessments of Macromolecules. Pharm Res, 2003, Vol 20, No 11, pp1885-1900.
9. Faltynek, C.R., Schroeder, J., Mauvais, P., Miller, D., Wang, S., Murphy, D., Lehr, R., **Kelley, M.**, Maycock, A., Michne, W., Mahmut, M., and Thunberg, A.L. Damnacanthal is a Highly Potent, Selective Inhibitor of p56lck Tyrosine Kinase Activity. Biochemistry, 1995, p 34.
10. Miller, D., Wang, S., Reid, J., Xie, W., Gauvin, B., **Kelley, M.**, Sarup, J., Sawutz, D.G., Miski, M., Dolle, R., and Faltynek, C.R. Approach to the Discovery of Novel, Selective Inhibitors of p56lck Inhibitors. Drug Development Research 34:344-352, 1995.
11. DeBenedetti, F., Massa, M., Pegnatti, P., **Kelley, M.M.**, Faltynek, C. and Martini, A. Elevated circulating Interleukin-7 levels in patients with systemic juvenile rheumatoid arthritis. Submitted for publication.
12. Faltynek, C., Wang, S., Miller, D., Young, E., Tiberio, L., Kross, K, **Kelley, M.** and Kloszewski, E. Administration of recombinant human IL-7 to normal and irradiated mice increases the numbers of lymphocytes and some immature cells of the myeloid lineage. Journal of Immunology, Vol 149, No. 4, August 15, p 1276&#64979;1282, 1992.
13. Sawutz, D.G., Yanni, J., **Kelley, M.M.** and Wolfe, H.R. Synthesis and molecular characterization of a biotinylated analog of [Lys] Bradykinin. Peptides, Vol 12, pp 1019 - 1024, 1991.
14. Ronca, N., Trudeau, K, **Kelley, M.M.** Stevens, G., and Rapp, L. Development of a Chemiluminescent Enzyme-Linked Immunosorbent Assay (ELISA) for the Quantitation of Recombinant Human Interleukin-4 (IL4) in Human Serum and Comparison of Assay Sensitivity with Colorimetric Methods. Cytokine Vol.3 #5, Sept 1991 p 493.
15. **Kelley, M.M.** and Smith, S.A. Development of an Enzyme-Based Assay to Detect Circulating Levels of IL7 in Serum. Cytokine, Vol 3, No. 5, Sept 1991, p 490.
16. Sawutz, D.G., Wolfe, H., **Kelley, M.M.**, and Yanni, J. Synthesis and characterization of a biotinylated analog of bradykinin. The Pharmacologist; 32(3): 120, 1990.
17. Huang, J., Newton, R.C., **Kelley, M.M.**, et. al. High level expression in Escherichia coli of a soluble and fully active recombinant Interleukin 1B. Mol. Biol. Med. 4:169-181, 1987.
18. Korant, B., Towatari, T., **Kelley, M.M.**, and Turk, V. Interactions between a viral protease and cystatins. Journal of Biological Chemistry, Vol. 369, Hoppe-Seyler Suppl., 281-286, 1986.
19. **Kelley, Marian M.** et al J. Agric. Food Chem vol 33, pp962-965 (1985).
20. Lockart, R.Z., Pezzella, KM., Kelley M.M., et. al. Features independent of stain intensity for evaluating feulgen stained cells. Analytical and Quantitative Cytology, Vol. 6, No. 2, 1984.
21. **Kelley, M.M.**, Rosemiller, M.E., Daulerio, A.J. and Newton, R.C. Development of an antibody specific for human Interleukin 1. Lymphokine Research, 3:251, 1984.
21. Schreiber, A.D., **Kelley, M.M.**, et. al. Human monocyte functional heterogeneity: Monocyte fractionation by discontinuous albumin gradient centrifugation. Immunology, 49:231, 1983.
23. Gomez, F., **Kelley, M.M.**, Rossman, M.D., Dauber, J. and Schreiber, A. Macrophage recognition of complement-coated lymphoblastoid cells. Journal of Reticuloendothelial Society, 31:241-249, 1982.
24. Rossman, M.D., Cassizzi, A.M., **Kelley, M.M.**, et. al. Alveolar macrophage IgG receptor activity in silicosis: The effect of an N-Formylmethionyl peptide. Clinical Res 28:431 A, 1980.