

# Faculty

School of Pharmacy  
Medical Sciences Campus  
University of Puerto Rico



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## Rank/Discipline

Associate Professor  
Pharmaceutical Analysis  
Department of Pharmaceutical Sciences

## Education & Specialty Certification

PhD, University of Puerto Rico,  
Post Doctoral Chemistry,  
Medical University of South Carolina.

## Joseph Bloom, Ph.D.

### Research Areas and Active Projects

Research interests are: Pharmaceutical analysis applying different analytical techniques (LC/MS/MS, UPLC/MS/MS, GC/MS, etc) Dietary supplements and extemporaneous mixtures.

Currently working on: Analysis of xylazine in blood by UPLC/MS/MS in relation to death by overdose, determination of toxic elements in dietary supplement by atomic absorption, analysis of extemporaneous mixtures.

### Publications

**Bloom, J., Ortiz, J., Rodriguez, J.F., Azidothymidine Triphosphate Determination Using Micellar Electrophoretic Capillary Chromatography, Cell and Molec. Biol.** 43(7), 1051 (1997).

**Bloom, J., Lehman, P., Israel, M., Rosario, O.Korfomacher WA, Mass Spectral Characterization of three anthacycline antibiotics: A Comparison of Thermospray Mass Spectrometry to Particle Beam Mass Spectrometry, J Anal Toxicol,** 1992 Jul-Aug 16(4), 223-7.

Korfomacher WA, Chiarelli MP, Lay JO Jr, **Bloom J., Holcomb M, McManus KT, Characterization of the Mycotoxin Fumonisin B1: Comparison of Thermospray, Fast-Atom Bombardment and Electrospray Mass Spectrometry, Rapid Commun Mass Spectrom,** 1991, Oct 5(10), 463-8.

Korfomacher, W.A., Getek, T.A., Hansen, E.B. and **Bloom, J., Characterization of Diphenhydramine, Doxylamine and Carbinoxamine Using High Performance Liquid Chromatography/Thermospray Mass Spectrometry, LC-GC** 8, 538 (1990).

### Presentations

Ruiz Colón\* K, Silva Torres L, Chavez Arias C, Peralta Narváez O, **Bloom Oquendo, J., Rodríguez Orengo JF, Common Heroin Adulterants in PUERTO RICO: THE Emerging of Xylazine, American Association of Forensic Sciences, Oct 2009.**

Ruiz Colón, K., Silva Torres, L., Chavez Arias, C., Peralta Narváez, O., Mattos De Jesus, F., Rodríguez Orengo, J.F., **Bloom Oquendo, J.**, Recurrence of Xylazine as an Adulterant of Heroin in Puerto Rico, XXIV Annual Research Forum, 2008, Medical Sciences Campus.

**Bloom, J.**, Desarrollo y Validación de Metodología Analítica para 1991, Establecer Protocolos de Suplementos Dietéticos, Proyecto Atlantea 8<sup>va</sup> Jornada de Estudios Caribeños, Universidad de Puerto Rico, Recinto de Río Piedras, March 2006.

López, V., **Bloom, J.**, Vega, J., Moreno, J., Melatonin Analysis in Dietary Supplements by HPLC using UV-Vis Detector, XXVI Foro Anual de Investigación y Educación, University of Puerto Rico, Medical Sciences Campus, April (2006).

**Bloom, J.**, López, J.A., Negrón, I., Cruz, R., Analysis of a Generic Ear Drops Complaint Sample by HPLC-UV and GC/MS, I Congreso Internacional de Química Analítica Aplicada, Universidad Norbert Weiner, Lima, Perú, Octubre 2005.

**Bloom, J.**, Gonzalez, M.C. Proyecto Investigativo sobre la Prevención en el Campo de las Deficiencias en el Desarrollo, Oficina del Procurador de las Personas con Impedimentos, San Juan, Puerto Rico, December 2004.

**Bloom, J.**, López, J.A., Negrón, I., Cruz, R. Analysis of a Generic Ear Drops Complaint Sample by HPLC-UV and GC/MS, FDA Science Forum, Washington, DC, April 2003.

**Bloom, J.**, The Impact of Mass Spectrometry in the Analysis of Proteomics, 1999 Seminar Series, Departments of Physiology, Biochemistry, RCMI Program, UPR-RCM, May 18, 1999.

Ramirez, R.D., **Bloom, J.**, Rodriguez, J.F., Jimenez, B.D., Determination and Quantitation of Environmental Organic Pollutants in Edible Fish Tissue by GC-MS Ion Trap, 2<sup>nd</sup> Annual International Symposium on Environmental Analytical Chemistry, Geneva, Switzerland, March (1998).

**Bloom, J.**, Ortiz, J. Rodriguez, J.F., Azidothymidine Triphosphate Detection Using Micellar Electrophoretic Capillary Chromatography, 18th Annual Research Forum, Medical Science Campus, University of Puerto Rico, San Juan, Puerto Rico (1997).

Ramirez, R.D., **Bloom, J.**, Rodriguez, J.F., Jimenez, B.D., Environmental Organic Pollutants in Aquatic Animal Tissues from a Contaminated Caribbean Estuary Lagoon, SETAC 18th Annual Meeting, November 1997, San Francisco, California.

Marrero-Ortiz, R., **Bloom, J.**, Rodriguez, J.F., Jimenez, B.D., Rodríguez, C.J., Environmental Organic Pollutants in Aquatic Animal Tissues from a Contaminated Caribbean Estuary Lagoon, SETAC 1<sup>st</sup> Annual Meeting, November 1997, San Francisco, California.

**Bloom, J.**, Ortiz, J., Rodriguez, J.F., Azidothymidine Triphosphate Characterization by Micellar Electrophoretic Capillary Chromatography, ~ International Symposium on Pharmaceutical and Biomedical Analysis, Orlando Florida, May (1997).

**Bloom, J.**, Ramirez, R.D, Rodriguez, J.F., Jimenez, B.D, Determination of Organic Pollutants in Fish Tissue by GCIMS Ion Trap, 5th EPSCoR Annual Meeting, Fajardo, Puerto Rico, May (1997).

**Bloom, J.**, Ortiz, J. Rodriguez, J.F., Method Development for the Characterization of Intracellular AZT-TP Using Capillary Electrophoresis, s'h RCMI-NIH International AIDS Symposium, November 1996, Rio Grande, Puerto Rico.

Rodriguez, J.F., Martí, A, **Bloom, J.**, Alvarez, M., Monitoring Doping Control Drugs During the XVII Central American and Caribbean Games, 16th Annual Research Forum, Medical Science Campus, University of Puerto RICO, San Juan, Puerto Rico (1995).

**Bloom, J.**, Alvarez, M., Rodriguez, J.F. and Martí, A., A Close Look at the Use in Sports Elite Centro American Athletes, 16th Annual Research Forum, Medical Science Campus University of Puerto Rico San Juan Puerto Rico (1995) ".

Korfmacher, WA, Abian, J., **Bloom, J.**, Churchwell, M.I., Utility of Thermospray HPLC/MS for the Analysis of Pharmaceuticals and Metabolites, Federation of Analytical Chemistry & Spectroscopy Societies Philadelphia, Pennsylvania (1992).

Hansen, E.B. Jr., **Bloom, J.**, Thompson, H.C. Jr. and Korfmacher, WA., Utility of HLPC/TSMS for the Analysis of the Antituberculosis Drugs Aconiazide and Isoniazide, at the 3gth ASMS Conference on Mass Spedrometry [f and Allied Topics, Nashville, Tennessee, p. 1344 (1991).

Churchwell, M., Korfmacher, WA. and **Bloom, J.**, Analysis of Sulfamethazine in Milk by Thermospray Liquid Chromtography/Mass Spectrometry, at the 31th ASMS Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, p. 1342 (1991).

Korfmacher, WA, **Bloom, J.**, Chiarelli, P., Lay, J.O. Jr., Holcomb, M. and McManus, K. T, Comparison of Thermospray, FAB, and E/ectrospray for the MS Characterization of the Micotoxin Fumonisin B 1, at the 31<sup>st</sup> ASMS Conference on Mass Spectrometry

and Allied Topics, Nashville, Tennessee, p. 710 (1991).

Korfmacher, WA., **Bloom, J.**, Churchwell, M.I. and McManus, K. T., Comparison of Thermospray and Electrospray for the MS Characterization of Three Anthracyc/ines, at the 3g111 ASMS Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, p. 595 (1991).

**Bloom, J.**, Korfmacher, WA, Israel, M. and Rosario, O., Utility of HPLC/TSMS for the Analysis of Three Anthracyc/ines, at the 3gth ASMS Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, p. 571 (1991).

**Bloom, J.**, Lehman, P., Korfmacher, WA., Israel, M. and Rosario, O., EIMS and PBCIMS for the Analysis of Doxorubicin, Daunorubicin, and Canninomycin, at the 3g1h ASMS Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, p. 569 (1991).

Holder, C.L, Churchwell, M.I., Korfmacher, WA., **Bloom, J.**, Billedeau, S.M., Evans, F.E., Bryant, M.S. and Stone, A., Investigation of Heterocyclic Amines and Two of The N-oxidation Products by Thermospray Mass Spectrometry, at the 31th ASMS Conference on Mass Spectrometry and Allied Topics, Nashville, Tennessee, p. 308 (1991).

**Bloom, J.**, Getek, T.A., Freeman, J.P., Holder, C.L and Korfmacher, WA, Applications of LC-MS and LC-MS-MS to the Analysis of Rat Urine for Pyrilamine Metabolites, at the National Symposium on Health Research Carrer Opportunities for Hispanic Americans, San Antonio, Texas (1989).

**Bloom, J.**, Getek, TA. and Korfmacher, WA., Utility of HPLC combined with Thermospray MS for the Analysis of Rifampicin and other related compounds, at the 3dh ASMS Conference on Mass Spectrometry and Allied Topics, Tucson, Arizona, p.1051 (1990).

**Bloom, J.**, Korfmacher, WA., Freeman, J.P., Getek, T.A. and Holder, C.L, Utility of LC-MS and Tandem MS for the Analysis of the Rat Urine Metabolites of Pyrilamine, at the 3"fh ASMS Conference on Mass Spectrometry and Allied Topics, Miami Beach, Florida, p. 1302 (1989).