BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

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NAME

Joan Elise Jackson, PhD, JD, Esq. (maiden surname: "Decker," married Peter R. Jackson, PhD, 8 Oct. 1977)

Address: 16609 Lescot Terrace, Rockville, Maryland Cell: 301-661-9002/email: jacksonall@aol.com

POSITION TITLE

Esq., admitted to practice law in Massachusetts June 15, 2012, J.D. May 2011. US citizen by birth.

Former: 1981-2006, Senior Research Zoologist, PhD, GS13-14/10 (civilian), had secret security clearance.

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)				
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY	
University of Massachusetts-Dartmouth School of Law [formerly, Southern New England School of Law] 333 Faunce Corner Road North Dartmouth, Massachusetts 02747-2300	J.D.	2006-2011	Major focuses: intellectual property (IP) law and international law (member, Jessup Moot Court Team); IP legal internship summer 2008; author IP law review: *32 Pace L. Rev. 676-786 (2012).	
University of Nebraska, [Registrar and Records] P.O. Box 880416 Lincoln, Nebraska 68588-0416	Ph.D.[Decker]	1971-1974	Zoology; emphasis in Biochemistry.	
Tulane University, 6823 St. Charles Avenue, New Orleans, Louisiana 70118-5698	M.S.[Decker]	1970-1971	Biology	
Tulane University, New Orleans, LA 70118-5698	B.S.[Decker]	1966-1970	Biology; minor: German_	
Foundation for Advanced Education in the Sciences (FAES), National Institutes of Health Graduate School, One Cloister Court, NIH Suite 230, Bethesda, Maryland 20814	Non-degree Professional	1981-2005	7 graduate credits medical science law; 27 graduate credits: Pharmacology, Medicinal- & Advanced Chemistry, Molecular Biology, Cell Biology, Immunology, Neurochemistry.	
Various Professional Organizations	Professional	1981-1998	Tropical Medicine; Personnel-/Federal Contract Management; >200 CME credits, and >400 class hours, respectively.	

^{*} Law Review: Joan E. Jackson, "Beyond the Scope of Ordinary Training and Knowledge": The Argument for Droit Moral, U.S. Research Science Intellectual Property Moral Rights, 32 Pace Law Review 676-786 (2012). A digital-pdf copy is available at http://digitalcommons.pace.edu/plr/vol32/iss3/3, last visited Dec. 14, 2012.

Professional Positions:

- June 15, 2012, admitted to practice law in Massachusetts, http://www.mass.gov/bbe/p212a-m.htm, last visited Nov. 19, 2012; 2011-12 completed 4.5 ABA-sponsored CLE credits in Intellectual Property and Contracts law.
- 2006-May 2011. J.D., law student, University of Massachusetts Dartmouth School of Law, 333 Faunce Corner Road, North Dartmouth, Massachusetts 02747.
- June-Aug. 2008. Legal intern (intellectual property law, 10 weeks fulltime with PIIPA), sponsor: Michael A. Gollin, Esq., Partner, Venable, LLP, 575 7th Street, Washington, D.C. 20004; PH: 202-344-4072; FAX: 202-344-8300; email: magollin@Venable.com. With Venable support, Mr. Gollin founded Public Interest Intellectual Property Advisors (PIIPA), a virtual, global intellectual property attorney volunteer network, *pro bono* service for developing country clients.
- 2004-2006. Senior Research Scientist (civilian), Division of Communicable Diseases and Immunology, Walter Reed

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- Army Institute of Research (WRAIR), 503 Robert Grant Avenue, Silver Spring, MD 20910-7500, U.S.A. 1986-2006. Adjunct Graduate Faculty (civilian), Department of Preventive Medicine and Biometrics, Division of Tropical Public Health, Uniformed Services University of the Health Sciences, F. Edward Herbert School of Medicine, Bethesda, MD 20814.
- 1994-2004. Grant Co-Author & Associate Antiparasitic Program Leader of an International Cooperative Research Program Project consortium: National Institutes of Health [NIH]/National Science Foundation [NSF]/U.S. Agency for International Development [AID]/NIH-Fogarty International Center research award for drug discovery and preclinical development/10 years/>\$5,000,000, Division of Experimental Therapeutics, WRAIR. [See, "completed research...," below, describing drug development program.]
- 2002-2004. Completed advanced biomedical- and neurochemistry courses on paid administrative leave.
- 2000-2003. Interagency (Centers for Diseases Control and Prevention, CDC:WRAIR) Memorandum of Understanding, MOU, by signature of the Surgeon Generals of CDC and Department of the Army (DoA), position: Public Health Field-Investigation and Training Program Support Manager (civilian).
- 1989-2002. Group Leader, Antileishmanial Drug Development, Division of Experimental Therapeutics, WRAIR. 1995-2001. Director (civilian), *Leishmania* Diagnostic Laboratory for Walter Reed Army Medical Center (WRAMC),
- Division of Experimental Therapeutics, WRAIR, College of American Pathologists (CAP) and Clinical Laboratory Improvement Act 1988 (CLIA)-certified in January 2001.
- 1981-2002. Research Contract Scientific Manager, Division of Experimental Therapeutics, WRAIR.
- 1981-1985. Deputy Director, WRAIR Tropical Medicine Course, Division of Preventive Medicine, WRAIR.
- 1979-1985. Visiting Research Scientist/World Health Organization (WHO) Grant Principal Investigator, PI, Division of Experimental Therapeutics, WRAIR, Silver Spring, MD 20910.

Academic Honors and Professional Society Offices and Membership:

<u>Current member</u>: American Bar Association, Massachusetts Bar Association, Delta Theta Phi International Law Fraternity, American Chemical Society, Sigma Xi-Scientific Research Society.

2007 James H. Nakano [Centers for Diseases Control and Prevention, CDC-PHS] Citation for outstanding scientific research publication in 2006.

1995 President-Elect, Helminthological Society of Washington

1994-1998 Biodiversity Committee Member, American Society of Parasitologists

1992-1994 Secretary-Treasurer, Helminthological Society of Washington

1989-1992 Member of Executive Committee, Helminthological Society of Washington

1991 U.S. Army Research and Development Achievement Award

1978-79 N.I.H. Postdoctoral Research Fellowship, University of Maryland-Baltimore County

1975-78 N.I.H. Postdoctoral Research Fellowship, University of Massachusetts-Amherst

1975 Harold W. Manter Prize for Parasitology

Recent Science Research Awards

- 1. 16 May 2007, James H. Nakano Citation for an outstanding research paper published in 2006, awarded to Duprey, ZH, Steurer FJ, Rooney JA, Kirchoff IV, Jackson, JE, Schantz P, Canine Visceral Leishmaniasis, United States and Canada 2000-2003, Emerging Infectious Diseases 12:440-446 (2006).
- 2. Nomination 14 June 2007 for the Charles C. Shepherd Award, re the same research paper given #1.

Completed Research Support

(i) 3U01TW000327-09S1, Schuster, Brian G. (PI) 11/1994-09/29/2004 Fogarty International Center, National Institutes of Health (NIH) >\$5,000,000/10 yrs.

Grant Title: Drug Development and Conservation of Biodiversity in West and Central Africa.

The goal of this program project cooperative research was to discover and conduct preclinical [animal] testing of new drugs to treat tropical diseases endemic to West and Central Africa. New drugs' license and royalties benefits were to be shared to build science and medical infrastructure in partner countries, Nigeria and Cameroon.

Role: Coauthor and Co-investigator: Associate Program Group Leader & Mgr. for Antiparasitic Drug Development

(ii) World Health Organization (WHO), Research Contract, Jackson, Joan E. (PI) 10/01/1979-1985 approx. \$150,000/5 yrs

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The objective of this project was to develop a micro-radiorespirometric method for use both: (a) to identify *Leishmania* species/strains, and (b) to determine drug susceptibility/-resistance of these pathogens of humans and domestic animals. The microradiorespirometry procedure had been developed by Biospherics, Inc. for use in the Viking probe to detect life on Mars. Under appropriate license for research development, I modified the Biospherics' micro-radioistopic procedure for use with unicellular protozoan pathogens of humans, *Leishmania*. Role: Sole author and principal investigator (PI).

Patents (4 issued) and Patent Applications (20, all not shown): Roughly by family.

- 1. Antifungal and antiparasitic compounds, **Joan E. Jackson**, Maurice M. Iwu, Christopher O. Okunji, Cyrus Bacchi, John D. Tally, Jr., Johnson F. Ayafor, U.S. Patent application serial number, 10/119,502, filed 10 April 2002, PTO published 13 April 2003.
- 2. Antifungal and antiparasitic compounds, **Joan E. Jackson**, Maurice M. Iwu, Christopher O. Okunji, Cyrus Bacchi, John D. Tally, Jr., Johnson F. Ayafor, **US Patent No. 6,403,576 issued 11 June 2002.**
- 3. Plant-derived antiparasitic and antifungal compounds, mechanism of action, and methods of use, Christopher O. Okunji, Maurice M. Iwu, **Joan E. Jackson**, John D. Tally, Cyrus Bacchi, Johnson F. Ayafor, U.S. patent application serial number, 09/428,203, filed 27 October 1999.

Brazil PI 9914857-9 Status: Pending Canada 2,347,926 Status: Pending EPO 99960165.1 Status: Granted Israel 142805 Status: Pending Status: Pending Status: Pending Status: Pending Status: Granted Status: Granted

- 4. Antiparasitic and antifungal compositions, **Joan E. Jackson**, Maurice M. Iwu, Christopher O. Okunji, Cyrus Bacchi, John D. Tally, Johnson F. Ayafor, U.S. patent application serial number, 09/382,128, filed 24 August 1999.
- 5. Antiparasitic and antifungal compositions, mechanism of action, and methods of use, **Joan E. Jackson**, Maurice M. Iwu, Christopher O. Okunji, Cyrus Bacchi, John D. Tally, Johnson F. Ayafor, US Patent application serial number, 60/097.672, filed 24 August 1998.
- 6. Plant-derived antiparasitic and antifungal compounds, mechanism of action, and methods of use, Christopher O. Okunji, Maurice M. Iwu, **Joan E. Jackson**, John D. Tally, Cyrus Bacchi, Johnson F. Ayafor, US Patent application serial number, 60/105,888, filed 27 October 1998.
- 7. Alkaloids of *Picralima nitida* used for treatment of protozoal disease, Maurice M. Iwu, Daniel L. Klayman, **Joan E. Jackson**, and John D. Tally, **U.S. Patent No. 5,290,553 issued 1 March 1994**.
- Antiparasitic and antifungal compositions and methods of use, inventors: Maurice M. Iwu, Chris O. Okunji, Joan E. Jackson, John D. Tally, and Daniel L. Klayman, US patent application serial number, 07/947,816, filed 21 September 1992.
- 9. Antimonial drug therapy, **Joan E. Jackson**, and John D. Tally, US patent application serial number, 07/603,056, filed 25 October 1990.
- 10. Novel serum-free medium and in vitro radiorespirometric method for testing of drug sensitivity in *Leishmania* samples, **Joan E. Jackson**, and John D. Tally, US patent application serial number, 07/304,438, filed 31 January 1989.

Book Chapters (2):

- **Jackson JE**, 1985. Radiorespirometry. In: Hayunga G, and Steck M, eds, <u>Atomic Energy Applications in Parasitology</u>, International Atomic Energy Agency, Vienna, Chapter 18, 21pp.
- Jackson JE, Tang DB, 1982. Identification of <u>Leishmania</u> spp. by radiorespirometry. II. A statistical method of data analysis to evaluate the reproducibility and sensitivity of the technique. In: Chance ML, Walton BC, eds, <u>Biochemical Characterization of Leishmania</u>, UNDP/World Bank/World Health Organization Tropical Disease Research Programme, Geneva, Chapter 26, 41pp.

Selected Publications:

- Duprey ZH, Steurer FJ, Rooney JA, Kirchhoff LV, **Jackson JE**, Rowton ED, Schantz PM, 2006. Canine visceral leishmaniasis, United States and Canada, 2000-2003. *Emerging Infectious Diseases* [e-pub ahead of print: http://www.cdc.gov/ncidod/EID/vol12no03/05-0811.htm] March 2006, Vol 12, No. 3.
- Schantz PM, Steurer F, Duprey Z, Kurpel K, Barr SC, **Jackson J,** Breitschwerdt E, Levy M, Fox JC, 2005.

 Autochthonous visceral leishmaniasis in dogs in North America: recent cases and historical review. *J Am Vet Med Assoc* 226(8):1316-1321.

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- Wortmann G, Miller RS, Oster C, **Jackson J**, Aronson N, 2002. A randomized, double-blind study of the efficacy of a ten- or twenty-day course of sodium stibogluconate (Pentostam) for treatment of cutaneous leishmaniasis in United States military personnel. *Clin Infect Dis* 35(3):261-267.
- Gaskin AA, Schantz PM, **Jackson JE**, Birkenheuer A, Tomlinson L, Gramiccia M, Levy M, Steurer F, Kollmar E, Hegarty BA, Breitschwerdt EB, 2002. Visceral leishmaniasis in a New York foxhound kennel. *Journal of Veterinary Internal Medicine* 16(1):34-44.
- Schantz P, Steurer F, **Jackson J**, Rooney J, Akey B, Duprey Z, Breitschwerdt E, Rowton E, Gramiccia M, 2001. Emergence of visceral leishmaniasis in dogs in North America. Proceedings Second World Leishmaniasis Congress (Invited Manuscript), Crete, 20-24 May 01, pp. 4-13.
- Wortmann G, Sweeney C, Houng H-S, Aronson N, Stitler J, **Jackson J**, Ockenhouse C, 2001. Rapid diagnosis of leishmaniasis using fluorogenic PCR. *Am J Trop Med Hyg* 65(5):583-587.
- Schuster BG, **Jackson JE**, Obijiofor CN, Okunji CO, Milhous W, Losos E, Ayafor JF, Iwu MM, 1999. Drug development and conservation of biodiversity in West and Central Africa: a model for collaboration with indigenous people. *Pharmaceutical Biology* 37(Supplement):1-16.
- Kenner JR, Aronson NE, Bratthauer GL, Turnicky RP, **Jackson JE**, Tang DB, Sau P, 1999. Immunohistochemistry to identify *Leishmania* parasites in fixed tissues. *J Cutan Pathol* 26(3):130-136.
- Aronson NE, Wortman GW, Johnson SC, **Jackson JE**, Gasser RA Jr, Magill AJ, Endy TP, Coyne PE, Grogl M, Benson PM, Beard JS, Tally JD, Gambel JM, Kreutzer RD, Oster CN, 1998. Safety and efficacy of sodium stibogluconate in the treatment of leishmaniasis: recent US military experience. *Clin Infect Dis* 27(6):1457-1464.
- Wortman GW, Fraser SL, Aronson NE, Davis C, Miller RS, **Jackson JD**, Oster CN, 1998. Failure of Amphotericin B lipid complex in the treatment of cutaneous leishmaniasis. *Clin Infect Dis* 26(4):1006-1007.
- Martin S, Gamble J, **Jackson J**, Aronson N, Gupta R, Rowton E, Perich M, McEnvoy P, Berman J, Magill A, Hoke C, 1998. Leishmaniasis in the United States military. *Mil Med* 163(12):801-807.
- Okunji CO, **Jackson JE**, Tally JD, Iwu MM, 1996. Cytosensor microphysiometer system (CMS): a new method of screening medicinal plants for anti-leishmanial activity. <u>Practiques Interculturelles en Medecine et Sante Humaine</u>, Press Universitaires de Namur, Belgique, pp. 149-160.
- Okunji CO, Iwu MM, **Jackson JE**, Tally JD, 1996. Biological activity of saponins from two *Dracaena* species, in Waller GR (ed), Saponins: Chemistry and Biological Activity. *Adv Exp Med Biol* 404:415-428.
- Iwu MM, **Jackson JE**, Schuster BG, 1993. Medicinal plants as sources of new agents in the fight against leishmaniasis. *Parasit. Today* 10:65-68.
- Iwu MM, **Jackson JE**, Tally JD, Klayman DL, 1992. Evaluation of plant extracts for antileishmanial activity using a mechanism-based radiorespirometric technique. *Planta Medica* 58:436-441.
- **Jackson JE**, Tally JD, Ellis WY, Mebrahtu YB, Lawyer PG, Were JBO, Reed SG, Panisko DM, Limmer BL, 1990. Quantitative *in vitro* drug susceptibility evaluation of *Leishmania* spp. from patients unresponsive to pentavalent antimony therapy. *Am J Trop Med Hyg* 43:464-480.
- **Jackson JE**, Tally JD, Tang DB, 1989. An *in vitro* micromethod for drug sensitivity testing of *Leishmania*. *Amer J Trop Med Hyg* 41:318-330.
- Berman JD, Hanson WL, Lovelace JK, Waits VB, **Jackson JE**, Chapman WL, Klein RS, 1987. Activity of purine analogs against *Leishmania donovani in vivo*. *Antimicrob Agents Chemother* 31:111-113.
- Baird JK, Davidson DE, **Decker-Jackson JE**, 1986. Oxidative activity of hydroxylated primaquine analogs. Non-toxicity to glucose-6-phosphate dehydrogenase-deficient human red blood cells *in vitro*. *Biochem Pharmacol* 35:1091-1098.
- Baird JK, **Decker-Jackson JE**, Davidson DE, 1984. An *in vitro* micro volume procedure for rapid measurement of erythrocyte hexose monophosphate shunt activity. *Interntl J Biochem* 16:1049-1052.
- **Decker-Jackson JE**, Fox JC, 1982. Rapid identification of a *Leishmania* sp. from the United States of America and preliminary drug-sensitivity screening using radiorespirometry. <u>Nuclear Techniques in the Study of Parasitic Infections</u>, International Atomic Energy Agency, Vienna, pp 543-559.
- **Decker-Jackson JE**, Honigberg BM, 1978. Glycoproteins released by *Leishmania donovani*, immunologic relationships with host and bacterial antigens and preliminary biochemical analyses. *J Protozool* 25(4):514-525.
- **Decker JE**, Schrot JR, Levin GV, 1977. Identification of *Leishmania* spp. by Radiorespirometry. *J Prototozool* 24(3):463-470.
- **Decker JE**, Janovy J Jr, 1974. *Leishmania donovani* and *Leishmania mexicana* production of the excretion factor. *Comp Biochem Physiol* B 49(3):513-523.

Biographic Sketch: Jackson, Joan Elise (page 5 of 6)

B.S. through post-PhD & J.D., relevant courses: subject/year/semester hours credit:

1. Selected Law Courses [2006-2011/97 law credits; for all 97, see U. Mass-D Law (J.D.) and FAES transcripts.]

Independent Legal Research/5; Intellectual Property Law/3; Technology Transfer 2005(FAES)/2;

International Law & Jessup Moot Court/6: Property/5: Constitutional Law/6: History of Civil and

Human Rights/3; Civil Procedure/5; Evidence/4; Torts/5; Securities Regulation/3;

Secured Transactions/4; Commercial Law & Business Organizations/7; Contracts/4;

Criminal Law & Criminal Procedure/6; Probate & Juvenile Court Practice/3;

Trusts & Estates & Drafting Wills & Trusts/7; Legal Ethics/3;

Principles of Health Law 2004(FAES)/2; Biomedical Ethics Law 2003(FAES)/3

2. Chemistry/Biochemistry/Medicinal Chemistry/Pharmacology (1967-2005/72 college credits)

Pharmacology of Chinese Herbs/2005/3

Neural-Immune Interactions in Health and Disease/2004/2

Monocyte, Dendritic Cells, Microglia in Viral and Neurodegenerative Diseases/ 2003/3

Cell Membrane and Intracellular Trafficking/2003/2

Polymerase Chain Reaction [PCR] and Molecular Hybridization Technology/ 1998/2)

Centers for Disease Control, Atlanta, Georgia, Course: "Applications of PCR Technology"/1991/1

American Chemical Society Course: "Biotechnology Techniques for Chemists"/ 1989/3

American Chemical Society Course: "Recombinant DNA for Chemists"/1989/3.5

Biochemistry of Nucleic Acids/1974/2

Biochemistry and Metabolism of Lipids/1997/3

Protein Chemistry/1973/2

Carbohydrate Chemistry/1972/2

Clinical Pharmacokinetics and Biopharmaceuticals/1996/3

Medicinal Chemistry/1981/3

Introductory Principles of Radiation Protection/1979-8 classroom hours

Radioisotope Methods/1972/3

General Biochemistry/1971-72/9

Organic Chemistry/1968-69/8

Quantitative Analysis/1968/4

General Chemistry/1967/8

3. Microbiology (1968-2004/64 college credits)

Molecular and Cellular Mechanisms of Immunity II/2004/2

The Cell Biology of Immunity and Inflammation/1980/3

Mechanisms in Biochemical Regulation/1974/3

Microbial Physiology/1971/3

Advanced Cell Biology/1971/3

Developmental Genetics/1971/3

Genetics/1969/3

Cell Biology/1968/3

Comparative Physiology/1970/3

Scientific (Microscopic) Photography/1973/3

Protozoology/1971/4

Protozoan Physiology/1972/3

Special Research Project/1971/3

Problems in Advanced Biology/1971/3

Microbiology/1970/3

Mycology/1970/3

Helminthology/1970/3

Problems [Research] in Host Parasite Relationships/1970/3

Host-Parasite Relationships/1971-3

4. Mathematics/Computer (1970-1980/13 college credits)

Introduction to Statistical Methods and Experimental Design/1980/3

Statistics/1973/3

Calculus/1970/6

Introduction to the VAX11/780 Minicomputer/1980/1.5

5. Foreign Languages: B.S.-minor in German (30 credits); passed PhD-reading requirement in German and French.

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Principal Investigator/Program Director (Last, First, Middle):

Biographic Sketch: Jackson, Joan Elise (page 6 of 6)

Contact information; contact information of three references, and 2012 published writing sample.

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Three references:

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Peter Schantz, VMD, PhD, Adjunct faculty Emory University and former (34 years) Senior Epidemiologist/Program Manager, Centers for Diseases Control and Prevention (CDC), Atlanta, Georgia. 2856 Woodland Park Dr, Atlanta, GA 30345

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Writing sample, law review: Joan E. Jackson, "Beyond the Scope of Ordinary Training and Knowledge": The Argument for Droit Moral, U.S. Research Science Intellectual Property Moral Rights, 32 Pace Law Review 676-786 (2012). A digital-pdf copy is available at http://digitalcommons.pace.edu/plr/vol32/iss3/3, last visited Dec. 14, 2012.