

 <p>United States Environmental Protection Agency Washington, DC 20460</p> <p>Interagency Agreement</p> <p>Amendment</p> <p>Part 1 - General Information</p>	1. EPA IAG Identification Number RW-75-92207501 - 0	4. Funding Location by Region EPA HQ
	2. Other Agency IAG ID Number Y1-ES-50009-01	5. Program Office Abbreviation Office of Research and Development
	3. Type of Action New	

6. Name and Address of EPA Organization US Environmental Protection Agency ORD/NCCT 4930 Page Road MD-B-305-03 RTP, NC 27711 DUNS: 029128894	7. Name and Address of Other Agency Department of Health & Human Services-NIEHS P.O. Box 12233 Research Triangle Park, NC 27709 DUNS: 927645168
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8. Project Title and Description
PBPk Modeling of NTP Priority Chemicals
To conduct collaborative research for developing physiologically-based pharmacokinetic (PBPk) models.

9. EPA Project Officer (Name, Address, Phone Number) Karen Dean 4930 Page Road MD-B-305-03 RTP, NC 27711 919-541-5037	10. Other Agency Project Officer (Name, Address, Phone Number) Chris Portier P.O. Box 12233 Research Triangle Park, NC 27709 919-541-3802
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11. Project Period 09/01/2005 to 09/01/2009	12. Budget Period 09/01/2005 to 09/01/2009
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13. Scope of Work
See attached.

Treasury Symbol 685160107
EPA Grants Specialist for this IAG is Michelle Messick 202-564-5358

14. Statutory Authority for Both Transfer of Funds and Project Activities Toxic Substances Control Act: Sec. 10	15. Other Agency Type Federal Agency
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Funds	Previous Amount	Amount This Action	Amended Total
16. EPA Amount			\$0
17. EPA In-Kind Amount		\$28,000	\$28,000
18. Other Agency Amount		\$100,000	\$100,000
19. Other Agency In-Kind Amt.			\$0
20. Total Project Cost		\$128,000	\$128,000

21. Fiscal									
Site Name	DCN	FY	Approp.	Budget Org.	PRC	Object	Site/Project	Cost Org.	Obligation
		0506	CR	2660x02	405FA6				100,000
									100,000

Part II - Approved Budget

EPA IAG Identification Number

RW-75-92207501-0

22. Budget Categories

	Itemization of This Action	Itemization of Total Project Estimated Cost to Date
(a) Personnel	\$80,000	\$80,000
(b) Fringe Benefits	\$10,000	\$10,000
(c) Travel	\$12,000	\$12,000
(d) Equipment	\$5,000	\$5,000
(e) Supplies	\$6,000	\$6,000
(f) Procurement Assistance	\$15,000	\$15,000
(g) Construction		\$0
(h) Other		\$0
(i) Total Direct Charges	\$128,000	\$128,000
(j) Indirect Costs: Rate % Base \$	\$0	\$0
(k) Total (EPA Share 21.88 %) (Other Agency Share 78.12 %)	\$128,000	\$128,000

23. Is equipment authorized to be furnished by EPA or leased, purchased, or rented with EPA funds? Yes No

(Identify all equipment costing \$1,000 or more)

24. Are any of these funds being used on extramural agreements? (See Item 22f.) Yes No

Type of Extramural Agreement Grant Cooperative Agreement Procurement

Contractor/Recipient Name (if known)	Total Extramural Amount Under This Project	Percent Funded by EPA (if known)
TBD	15000	0
	Total \$ 15,000.00	

Part III - Funding Methods and Billing Instructions

25. (Note: EPA Agency Location Code (ALC) - 68010727)

- Disbursement Agreement
 - Repayment
 - Advance
 - Allocation Transfer-Out
- Request for repayment of actual costs must be itemized on SF 1080 and submitted to the Financial Management Office, Cincinnati, OH 45268-7002:
- Monthly Quarterly Upon Completion of Work
- Only available for use by Federal agencies on working capital fund or with appropriate justification of need for this type of payment method. Unexpended funds at completion of work will be returned to EPA. Quarterly cost reports will be forwarded to the Financial Management Center, EPA, Cincinnati, OH 45268-7002.
- Used to transfer obligational authority or transfer of function between Federal agencies. Must receive prior approval by the Office of Comptroller, Budget Division, Budget Formulation and Control Branch, EPA Hdqtrs. Forward appropriate reports to the Financial Reports and Analysis Branch, Financial Management Division, PM-226F, EPA, Washington, DC 20460.

- 26. Reimbursement Agreement
 - Repayment
 - Advance
- Allocation Transfer-In

Funding Agency's Treasury Symbol One-Year Two-Year No-Year

Other Agency's IAG Identification Number Y1-ES-50009-01 EPA Program Office Allowance Holder/Resp. Center No.

Other Agency's Billing Address (include ALC or Station Symbol Number) 75-08-00031 Other Agency's Billing Instructions and Frequency Government Accounting Section/Ofc. of Fin. Mgmt. NIH 31 Center Drive, MSC 2045, Bethesda, MD 20892-2045

Statement of Work

PBPK Modeling of NTP Priority Chemicals

The objectives of this Interagency Agreement are:

1. Conduct collaborative research for developing physiologically-based pharmacokinetic (PBPK) models.
2. Provide technical expertise and comment to the National Toxicology Program (NTP) on toxicokinetic studies that NTP is considering and PBPK models being developed by others for NTP.

Milestones/timeline for Year 1 of the Project:

Sept -December 2005:

1. EPA will recruit for and bring onboard an r-authority post-doctoral employee for this project.
2. EPA will procure necessary computer workstation and software to perform the modeling work.
3. Once the post-doc is onboard, EPA and NIEHS collaborators will meet to discuss the detailed plans for the initial modeling studies.
4. The Quality Assurance Project Plan (QAPP) under which the post-doctoral employee will work will be prepared by Dr. Hugh A. Barton in conjunction with the NCCT/NERL QA Manager.
5. During the first year of this project PBPK(s) model for perfluorinated compounds will be developed based upon existing data available to EPA and new toxicokinetic studies carried out by NTP during the duration of this IAG.

Jan- June 2006:

1. EPA will review perfluorooctanoate lactational modeling options.
2. EPA will implement simple compartmental analysis of perfluorooctanoate lactational modeling.
3. EPA collaborators will meet and collaborate with NTP on results of reviews and modeling analyses studies of perfluorooctanoate lactational modeling studies.
4. Dr. Barton and EPA collaborators (depending on the topic of discussion) will attend NTP PK faculty meetings, as meetings are scheduled throughout the year (estimated at approximately one/month), and provide written and verbal advice on the toxicokinetic studies from new data being carried out by NTP.

July- Sept 2006:

1. EPA will continue work on perfluorinated compounds and will discuss continuation of this class of chemicals, or shifting to a other chemicals, with NIEHS collaborators. This is based on the results of ongoing studies being conducted at NIEHS and/or with their other collaborators.

2. EPA and NIEHS will begin discussions (draft agenda, identify speakers and invitees) for a workshop on statistics and PBPB modeling proposed for Year 2 of this effort.

3. EPA and NIEHS will work together to define work to be carried out during Year 2 of this project.

Deliverables

1. During the first year, deliverables will be participation in meetings as well as verbal and/or written advice as requested by NIEHS.

2. Deliverables will also be results of the reviews and modeling analyses. These results will be communicated via presentations, reports and publications. The appropriate venue will be discussed with NIEHS collaborators and determined during the course of the project.

Milestones and Deliverables for Year 2 will be determined during the final quarter of Year 1 of the project and will be included in future IAG amendments.

INTERAGENCY AGREEMENT
between the
National Institute of Environmental Health Sciences (NIEHS)
and the
Environmental Protection Agency (EPA)

ARTICLE I - SUBSTANCE OF THE AGREEMENT

A. General

The Environmental Protection Agency, hereinafter referred to as the "Agency" and the Department of Health and Human Services, National Institutes of Health, National Institute of Environmental Health Sciences, hereinafter referred to as the "Sponsor", desire to enter into an Agreement for the conduct of a research program for developing physiologically-based pharmacokinetic models in support of the National Toxicology Program (NTP) managed by the Sponsor.

The work and services to be conducted by the Agency under this Agreement will be performed on a continual basis with modeling needs defined by the priorities set by the NTP. The initial phase will focus on the evaluation of toxicokinetic studies currently being developed by the NTP.

B. Objective

The Agency is to provide the Sponsor with technical expertise and comment concerning the toxicokinetics studies being considered by the NTP, technical expertise and comment concerning PBPK models being developed by others in support of the NTP mission and actual PBPK models on NTP priority compounds not provided by other agencies. On occasion, the Agency may conduct laboratory research in support of the development of PBPK models for the NTP.

ARTICLE II - DESCRIPTION OF WORK

- A. The Agency shall furnish the necessary personnel, facilities, equipment, materials and supplies (except as specified herein) and exert its best efforts to provide advice and comment on PBPK models developed for the NTP by other agencies and to develop PBPK models for the NTP. This may involve accompanying NTP scientists on site visits to contract and research facilities, commenting on written materials provided to the Agency as part of NTP technical reports, conduct experiments in support of NTP PBPK modeling efforts, or develop actual PBPK models to be included in NTP technical reports and/or research publications. In the event laboratory studies are required, additional

funds over the baseline of \$100,000 per year envisioned for this agreement may be provided by the Sponsor, following negotiation of costs with the Agency.

B. The reporting requirements of this Agreement are as follows:

Reporting requirements will be met by providing reviews of PBPK models developed for the NTP when requested of the Agency by the Sponsor, attending NTP toxicokinetic faculty meetings regularly, and providing technical descriptions and computer code for PBPK models requested by the Sponsor and agreed upon by the Agency. Depending on the technical complexity, reviews shall be provided within 45 to 60 days of receipt and PBPK models within 20 days of the development of the draft NTP technical reports. In the event that extensive modeling is required, this time limit may be extended. In the event that laboratory studies are desired as part of this agreement, reporting requirements will be established in an addendum to this Agreement. Copies of any reports shall be sent to the Sponsor's Project Officer.

ARTICLE III - PERIOD OF AGREEMENT

This Agreement shall become effective from the date of signature and execution, and expire on September 30, 2009. The Agreement shall not extend beyond the estimated completion date, unless the period is revised by modification of this Agreement. Funding increments shall be made through modifications to this Agreement each year at the time of appropriation.

ARTICLE IV - CONSIDERATION

A. Estimated Cost

1. It is estimated that the total cost to the Sponsor for full performance of this Agreement is \$500,000.
2. Total funds currently available for payment and allotted to this Agreement is \$100,000.
3. It is anticipated that this work shall encompass up to a five-year period and funded at the prescribed level per year, as funds are made available through appropriation each fiscal year.

ARTICLE V - LEGAL AUTHORITY

- A. The authority for this Agreement is the Toxic Substance Control Act, subchapter I, Section 2609(a).

ARTICLE VI - PROJECT OFFICER

- A. Dr. Christopher Portier, Program Director for the Environmental Toxicology Program, will represent the Sponsor for the purpose of this Agreement.
- B. Ms. Karen Dean, Management Analysis, will represent the Agency for the purpose of this Agreement.
- C. The Project Officer is responsible for (1) monitoring the Agency's technical progress, including the surveillance and assessment of performance and recommending to the Contracting officer changes in requirements; (2) interpreting the Description of Work and other technical performance requirements; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this Agreement; and (5) assisting in the resolution of technical problems encountered during performance.
- D. The following actions will require a bilaterally executed modification to this Agreement: (1) to direct or negotiate any changes in the Description of Work; (2) to modify or extend the period of performance; (3) to change the delivery schedule; (4) to authorize reimbursement to the Agency any costs incurred during the performance of this Agreement; or (5) to otherwise change any terms and conditions of this Agreement.

ARTICLE VII - AGENCY'S KEY PERSONNEL

- A. The personnel cited below are considered to be essential to the work being performed hereunder:

<u>Name</u>	<u>Title</u>
Dr. Hugh Barton	Toxicologist

- B. Prior to diverting any of the specified individuals to other programs, the Agency shall notify the Sponsor's administering office reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on the program. No diversion shall be made by the Agency without the written consent of the Sponsor's Project Officer, provided that the Sponsor's Project Officer may ratify in writing such diversion and such ratification shall constitute the consent of the Sponsor's Project Officer, required by this Article. This Article may be modified during the course of this Agreement to either add or delete personnel, as appropriate.

ARTICLE VIII - BILLING INSTRUCTIONS

- A. The Agency shall submit billings using the Simplified **Intragovernmental** Billing and Collection (SIBAC), or in cases where SIBAC is not available, the Agency shall submit billings on Standard Form 1080, entitled "Voucher for Transfer Between Appropriations and/or Funds", or other comparable form. All billings forms shall include the following information:
- A. Voucher number;
 - B. Date of voucher;
 - C. Billing Office (Agency);
 - D. Office Billed (Sponsor);
 - E. Agreement Number;
 - F. Remittance Address;
 - G. Description of Articles or Services and Amount;
 - H. A complete breakdown of costs, if applicable; and
 - I. Billing Office (Agency) accounting and appropriate data.

ARTICLE IX - PUBLICATION AND PUBLICITY

- A. The Agency is encouraged to publish and make available the results of its work under this Agreement. A copy of each article submitted by the Agency for publication shall be promptly sent to the Sponsor's Program Manager. The Agency shall also inform the Sponsor's Program Manager when the article or other work is published and furnish a copy of it as finally published.
- B. The Agency shall acknowledge the support of the Sponsor whenever publicizing the work under this Agreement in any media.

ARTICLE X - PATENTS

- A. The Agency will assume responsibility for protecting the interests of the United States Government in matters relating to patents.

ARTICLE XI - FINANCE/ACCOUNTING AND CONTRACTING PERSONNEL

- A. Finance/Accounting:

1. Sponsor:

Ms. Connie Riley
Administrative Officer

Agency Location Code: 75-08-0031
Appropriation: 7550862