RESEARCH PROJECT COOPERATIVE AGREEMENT

Department of Health and Human Services National Institutes of Health

NATIONAL CANCER INSTITUTE

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Issue Date: 09/08/2003

Grant Number: 5 U01 CA033193-22

Principal Investigator: Cogliano, Vincent James

Project Title:

EVALUATION OF CARCINOGENIC RISKS TO HUMANS

DIRECTOR, ADMIN & FINANCE INTER AGENCY FOR RES ON CANCER 150 COURS ALBERT THOMAS 69372 LYON CEDEX 08 FRANCE

Budget Period: 09/01/2003 - 08/31/2004 Project Period: 09/01/1985 - 08/31/2005

ar Business Official:

The National Institutes of Health hereby awards a grant in the amount of \$482,794(see ''Award Calculation'' in Section I) to WORLD HLTH ORG INTL AGCY RES ON CANCER in support of the above referenced project. This award is pursuant to the authority of 42 USC 241 31 USC 6305 & 6306 and is subject to terms and conditions referenced below.

Acceptance of this award including the Terms and Conditions is acknowledged by the grantee when funds are drawn down or otherwise obtained from the grant payment system.

Award recipients are responsible for reporting inventions derived or reduced to practice in the performance of work under this grant. Rights to inventions vest with the grantee organization provided certain requirements are met and there is acknowledgement of NIH support. In addition, recipients must ensure that patent and license activities are consistent with their responsibility to make unique research resources developed under this award available to the scientific community, in accordance with NIH policy. For additional information, please visit http://www.iedison.gov.

If you have any questions about this award, please contact the individual(s) referenced in the information below.

sincerely yours,

Joy Kearse

Grants Management Officer NATIONAL CANCER INSTITUTE

See additional information below

PAGE\_1\_OF\_6

#### SECTION I - AWARD DATA - 5 U01 CA033193-22

AWARD CALCULATION (U.S. Dollars):

Salaries and Wages	\$317,259
Fringe Benefits	\$105,872
Personnel Costs	\$423,131
Consultant Services	\$37,461
Travel Costs	\$3,122
Other Costs	\$151,628
Federal Direct Costs Federal F&A Costs APPROVED BUDGET Less Unobligated Balance TOTAL FEDERAL AWARD AMOUNT	\$615,342 \$79,994 \$695,336 \$212,542 \$482,794
TOTAL FEDERAL AWARD AMOUNT	9402,754

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project, is as follows.

23 (b)(5)

.19CAL INFORMATION: CFDA Number: 93.393

EIN: 1900210016A1 Document Number:

U1CA33193E

IC / CAN / FY2003 / FY2004 CA / 8423126 / 482,794 / (b)(5)

NIH ADMINISTRATIVE DATA:

PCC: 38CG3126 / OC: 41.4P /Processed: KEARSEJ 030904 0134

SECTION II - PAYMENT/HOTLINE INFORMATION - 5 U01 CA033193-22

For Payment and HHS Office of Inspector General Hotline Information, see the NIH Home Page at http://grants.nih.gov/grants/policy/awardconditions.htm

CTION III - TERMS AND CONDITIONS - 5 U01 CA033193-22

This award is based on the application submitted to, and as approved by, the NIH on the abovetitled project and is subject to the terms and conditions incorporated either directly or by reference in the following:

- a. The grant program legislation and program regulation cited in this Notice of Grant Award. b. The restrictions on the expenditure of federal funds in appropriations acts, to the extent those restrictions are pertinent to the award.
- c. 45 CFR Part 74 or 45 CFR Part 92 as applicable.
- d. The NIH Grants Policy Statement, including addenda in effect as of the beginning date of the budget period.
- e. This award notice, INCLUDING THE TERMS AND CONDITIONS CITED BELOW.

(see NIH Home Page at http://grants.nih.gov/grants/policy/awardconditions.htm for certain references cited above.)

Carry over of an unobligated balance into the next budget period requires Grants Management Officer prior approval.

Treatment of Program Income: Additional Costs

INFORMATION This award is issued as a Cooperative Agreement, a financial assistance mechanism which requires cooperation between the awardee and the National Cancer Institute (NCI). The following Terms of Cooperation include the Programmatic Responsibilities of the Awardees, the Nature of Assistance by NCI Staff, Collaborative Responsibilities, and Arbitration Procedures (Attachment 1).

These special Terms and Conditions of Award are in addition to and not in lieu of otherwise applicable OMB administrative guidelines, Federal Regulations, including HHS Grant Administration Regulations at 42 CFR Part 52, 45 CFR Parts 74 and 92, and other HHS, PHS, and NIH Grant Administration policy statements.

The following administrative terms also apply:

NEW REQUIREMENT BEGINNING NOVEMBER 1, 2001: If a competing continuation application is submitted for this project, the requested budget is subject to the direct cost cap calculated in accordance with the National Cancer Institute's (NCI) policy, "Policy for Allowable Requested Budget Levels of Competing Continuation (Type 2) R01 and U01 Applications." This policy was announced in the NIH Guide for Grants and Contracts on August 7, 2001 and is available at http://grants.nih.gov/grants/guide/notice-files/NOT-CA-01-016.html.

For most awards, the last noncompeting year has the largest budget; and the competing continuation budget request cannot exceed an increase of 20% over the direct cost level of the last noncompeting year. However, in order to determine the maximum amount that you can equest, it is recommended that you also read Frequently Asked Questions, which are posted the NCI Internet at http://deainfo.nci.nih.gov/grantspolicies/newbudgetcap-faq.htm. It is extremely important for you to read and adhere to these guidelines. Competing continuation applications requesting increases in excess of this policy without prior approval from the NCI may be returned without review and may result in the loss of a full review cycle.

A request for a hard copy of the policy and/or questions about the policy should be directed to the NCI grants management specialist or the NCI program director identified on the award notice.

INFORMATION This revised award reflects NCI approval of the change of principal investigator from Dr. Rice to Dr. Vincent James Cogliano, as requested in the grantee's letter dated 4/22/03.

INFORMATION This award utilizes as an offset the unobligated balance from the 20-year financial status report.

'FORMATION Your request for additional funds has not been approved. National Cancer stitute staff have determined that there is sufficient flexibility within the awarded grant budget to permit the research to proceed.

INFORMATION For administrative and management concerns, contact the Grants Management Specialist, Joy Kearse, at (301) 846-1010, kearsej@mail.nih.gov. For programmatic and scientific concerns, contact the Program Director, Dr. Davis Longfellow, at (301) 496-5471.

INFORMATION In a continuing effort to provide exceptional customer service, the NCI Grants Administration Branch has set up a Feedback address on its web site (http://www.nci.nih.gov/admin/gab/index.htm). General concerns and issues related to NCI grants policies, procedures, and practices can be sent to the Customer Liaison using this feature. Specific questions or concerns related to this grant should be addressed to the Grants Management Specialist listed in the Terms of Award.

DAVID G. LONGFELLOW, Program Official

Phone: 301-496-5471 Email: dl58s@nih.gov Fax: 301-496-1040

Joy Kearse, Grants Specialist

Phone: 301-846-1010 Email: kearsej@mail.nih.gov

#### SPREADSHEET

GRANT NUMBER: 5 U01 CA033193-22 P.I.: Cogliano, Vincent James

INSTITUTION: WORLD HLTH ORG INTL AGCY RES ON CANCER

	YEAR 22 YEAR 23	
10		
Salaries and Wages	317,259 (b)(5)	
Fringe Benefits	105,872	
Personnel Costs	423,131	
Consultant Services	37,461	
Travel Costs	3,122	
Other Costs	151,628	
TOTAL FEDERAL DC	615,342	
TOTAL PEDERAL DC	•	
TOTAL FEDERAL F&A	79,994	
TOTAL COST	695,336	
	YEAR 22 YEAR 23	
A Cost Rate 1	13.00% (b)(5)	
F&A Cost Base 1	615,342	
F&A Costs 1	79,994	

#### 5 UOL CA33193-

#### Collaborative Terms of Award

#### Nature of Collaboration with NCI Staff

NCI has certain responsibilities in terms of this cooperative agreement which involve assistance, information support, and scientific collaboration.

#### 1. Scientific Resource

Since the monographs on each chemical which appear in the volumes published by IARC are fundamentally an international information resource and data bank on carcinogenesis and evaluation of qualitative risk of chemicals to humans, NCI, in an assistance and cooperative role, provides information and data which assist IARC staff in the preparation of certain sections of the final monograph (Sections 1.1 to 2.3). Sections 3.1 to 4.3 are developed by the Working Groups which consist of international scientists who review all these documents at the time of the meetings (3 per year) in Lyon, France. The National Cancer Institute, through arrangements with a contractor will provide such assistance.

# 2. Planning for Meetings of the Working Group

The IARC project is one of international support with NCI being the USA supporter for the monograph and the Information Bulletins on the Survey of Chemicals Being Tested for Carcinogenicity. This bulletin is a listing of chemicals being tested in laboratories throughout the world. Under the Cooperative Agreement, NCI:

- a. Makes suggestions to IARC on types of chemicals that should be evaluated at the three planned working group meetings per year held in Lyon, France.
- b. Makes suggestions and gives assistance to IARC as to USA resource people who should attend and participate in Working Group meetings. Personnel from regulatory agencies and trade associations should attend as observers.

#### 3. Program Involvement in Relation to Input from NCI

Under the section on scientific resources, reference was made to NCI input as to data on production, occurrence, analysis, and use of chemicals. NCI, also provides information relevant to carcinogenicity on chemicals tested in U.S. laboratories. These data are then incorporated in the Information Bulletin on the Survey of Chemicals Being Tested for Carcinogenicity.

#### 5 U01 CA33193-

#### Collaborative Terms of Award

In discussing certain phases of work that involve assistance and collaboration on the part of the NCI with IARC, reference was made to the essentiality of effective liaison and support. Participation by the NCI Program Director in the working group meetings in Lyon, France could be either as an observer or as a representative of NCI or as a full member of the working group in his personal capacity as a scientist

### 4. Reporting Requirements

NCI wishes to continue a semi-annual reporting requirement with scheduling or due dates for reports worked out by mutual arrangement between NCI staff and the IARC principal investigator. The volumes of monographs, supplements and survey bulletins are actually exhibits of achievements and accomplishments. Consequently, the semi-annual reports should dwell on planning, participation, selection of chemicals, problems of interfacing and cooperation and logistical matters. In addition, an annual report to be included in the required continuation applications should reflect that the project continues to conform to the purposes, objectives, and conditions of the award and has substantial programmatic involvement by NCI with the performer of the project.

#### 5. Publication and Distribution

One of the significant features of the IARC project in development of this international, authoritative reference source is the publication and distribution, on a world-wide basis, of these volumes, including the supplements to the volumes listing Chemicals and Industrial Processes Associated with Cancer in Humans, as well as the Survey Bulletins.

The National Cancer Institute will receive approximately 400 copies of each volume published. The NCI distributes these copies to NCI staff, representatives of other agencies interested in environmental and occupational carcinogenesis, selected university scientists engaged in carcinogenesis research, public health organizations and medical libraries. Therefore, many organizations and scientists in the USA and abroad benefit from this program, which is partially supported by the National Cancer Institute.

result of this application. I am aware that any false, fictitious, or fraudulent statements or claims

may subject me to criminal, civil, or administrative penalties.

al-year requested budget

Principal Investigator/Program Director (Last, first, middle): COGLIANO, Vincent James

PERIOD - DIR	ET FOR NEXT BUDG RECT COSTS ONLY		FROM 09/01/03	08/31/04	CA 33193	3-22
PERSONNEL (Applican	t organization only)		%	DOLLAR AM	MOUNT REQUES	TED (omit cents)
NAME.	ROLE ON PROJECT	APPT (month	. ON	SALARY REQUESTED	FRINGE BENEFITS	TOTALS
COGLIANO, V. J.	Principal Investigator	(b)(4), (	(b) (b)(4), (b)	-0	-0	-0
BAAN, R.	Scientist	(0)	(6)	88,600	29,500	118,100
STRAIF, K. 🗸	Scientist			90,900	30,300	121,200
SECRETAN, B. 🗸	Scientist		-	58,500	19,600	78,100
EL-GHISSASSI, F.*	Scientist			29,300	9,800	39,100
LEZERE, M. 🗸	Publication support		}	51,300	17,100	68,400
EGRAZ, S. 🗸	Archivist		ĺ	37,100	12,400	49,500
*Partly funded from oth		o list on	page 3 for a	dditional project	staff not funde	d by NCI grant.
	ወ <u>አ: እ.ጛ</u> ይኒ ቤን SUBTOTALS			355,700	118,700	474,400
CONSULTANT COSTS  See page 3				(364 861)	(139,541)	42,000
SUPPLIES (Itemize by catego	ory)					
TRAVEL (2.500)		meeting	a & to consu	It with NCI prog	ram officials	્ય, સ્ક 3,500
TRAVEL (3,5∞) One trip of the PI to U	JSA for a scientific	meeting	g & to consu	It with NCI prog	ram officials	्भ, २६ 3,500
TRAVEL (2.500)	JSA for a scientific	meetin	g & to consu	It with NCI prog	ram officials	
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TRAVEL (3,500) One trip of the PI to L PATIENT CARE COSTS  ALTERATIONS AND RENOV OTHER EXPENSES (Itemize See page 3	USA for a scientific  INPATIENT  OUTPATIENT  VATIONS (Itemize by cate by category)  STS FOR NEXT BUDG	gory)  GET PER  ECT COS	IOD		ram officials	3,500 170,000

## **BUDGET JUSTIFICATION**

**GRANT NUMBER** CA 33193-22

Provide a detailed budget justification for those line items and amounts that represent a significant change from that previously recommended. Use continuation pages if necessary.

PERSONNEL

Grosse, Y. Scientist

Publication support Mitchell; J.

Perez, E.

Secretary

nonths months months

effort effort

No salary support from NCI No salary support from NCI

No salary support from NCI effort Scientists from other units of IARC (see appendices to Progress Report Summary for list)

# CONSULTANT COSTS

<ul> <li>Preparation of draft monographs</li> <li>\$400/expert x 20 experts x 2 Monographs =</li> </ul>	\$ 16,000
<ul> <li>Editing of Monographs</li> <li>\$13,000 per volume x 2 volumes</li> </ul>	\$ 26,000 \$ 42,000
OTHER EXPENSES - Working groups (travel and per diem) (\$45,000 x 2) - Printing of Monographs (\$25,000 x 2) - Distribution of free monographs (\$6,000 x 2) - Reprint requests Books, journals & reproduction costs	\$ 90,000 \$ 50,000 \$ 12,000 \$ 8,000 \$ 10,000 \$170,000

CURRENT BUDGET PERIOD	FROM 09/01/02	THROUGH 08/31/03	
	Total estimated expenditure	Estimated unobligated balance	
DIRECT COSTS	\$ 597,418	\$ 0	
INDIRECT COSTS TOTAL	\$ 77,664 \$ 675,082	\$0 \$0	

#### **Budget Justification**

The funds requested from the National Cancer Institute for the continuation of the currently supported project amount to \$689,900, indirect costs excluded, for the period 1 September 2003 to 31 August 2004. The Committed Level for this period in the Notice of Grant Award dated 30/08/02 amounts to \$615,342, after the 15% reduction applied on the Corrected Recommended Level of Support.

The budget essentially represents the cost of maintaining the ongoing programme, i.e. three meetings and three Monographs volumes per year, assuming that one working group and one volume will be financed from other sources. The number of posts to be supported by the grant is the same as in Year 21: 3.5 scientists and 2 secretarial staff.

The increase of \$92,482 above the approved budget for Year 21 relates to the following factors:

Approved budget for Year 21

\$597,418

PLUS: Currency realignements
Cost increase

\$87,752 (14,69%) \$ 4,730 ( 0.79%)

\$ 92,482

**REQUESTED BUDGET FOR YEAR 22** 

\$689,900

The budget for Year 21 was developed and approved with an exchange rate of €1.065 to the US dollar, compared with the rate of €0.849 used for the present application. This drop of the dollar value results in an increase of 25% of the dollar equivalent of Euro expenditure.

The cost increase (\$28,873) resulting mainly from increased staff entitlements is offset by a decrease of \$24,143 in other budget categories.

Page4	Continuation Format Page

#### **BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel in the order listed for Form Page 2. Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES**.

NAME	POSITION TITLE
COGLIANO, VINCENT JAMES	Chief, Carcinogen Identification and Evaluation

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Catholic University, Washington DC	A.B.		Mathematics
Jniversity of Michigan, Ann Arbor MI	M.A.		Mathematics
Cornell University, Ithaca NY	Ph.D.	1982	Operations Research

# A. Positions and Honors

# -Employment

1975-1978	Mathematician, Defense Communications Agency, Washington DC.
1978, 1979	Regulatory Policy Analyst, U.S. Environmental Protection Agency, Washington DC.
1981-1983	Manufacturing Engineer, IBM Corporation, Endicott NY.
1983-1985	Statistician, Office of Policy, Planning and Evaluation, U.S. EPA, Washington DC.
1985-1990	Statistician, Carcinogen Assessment Group, U.S. EPA, Washington DC.
1990-1995	Chief, Carcinogen Assessment Statistics & Epidemiology Branch, EPA, Washington.
1995-2001	Chief, Quantitative Risk Methods Group, U.S. EPA, Washington DC.
2000-2001	Acting Director Washington Div'n, National Center for Environmental Assessment, EPA.
2001-2003	Special Assignment: Chair of Cancer Guideline Writing Group, U.S. EPA, Washington.
2003-present	Chief, Carcinogen Identification and Evaluation,
•	International Agency for Research on Cancer, Lyon France.

# Fellowships and Assistantships

1969-1973	Merit Scholarship, Catholic University.
1973-1975	Teaching Fellowship, University of Michigan.
1978-1981	Research Assistantship, Cornell University.

# **Honors**

1973	Phi Beta Kappa.	
1984	EPA Silver Medal for support of national decision on ethylene dibromide in food supply.	
1993	Scientific Achievement Award for publication on early-life sensitivity to vinyl chloride.	
1996	EPA Bronze Medal for developing consensus information on chemical carcinogen risks.	
1998	EPA Bronze Medal for managing international risk assessment training program.	
1998	Scientific Achievement Award for publication on cancer risks from environmental PCBs.	
1998	EPA Gold Medal for innovative assessment of PCB health hazards.	
1999	EPA Peer Award for international environmental protection.	
2000	EPA Peer Award for teamwork.	
2001	Scientific Achievement Award for monograph on trichloroethylene health risks.	
2001	Scientific Achievement Award for publication on health implications of air toxics levels.	
2002	EPA Tribute of Appreciation for technical support at the Hudson River PCB site.	
2002	EPA Silver Medal for guidance on health risk assessment of chemical mixtures.	
2002	FPA award for outstanding technical assistance to the regions or program offices	

#### B. Selected Peer-Reviewed Publications

#### Scientific journal articles

- Schruben L, Cogliano VJ (1987). An experimental procedure for simulation response surface model identification. Communications of the ACM 30(8): 716-730.
- Cogliano VJ, Farland WH, Preuss PW, Wiltse JA, Rhomberg LR, Chen CW, Mass MJ, Nesnow S, White PD, Parker JC, Wuerthele SM (1991). Carcinogens and human health: part 3. Science 251(4994): 606-607 (letter)
- Cogliano VJ, Parker JC (1992). Some implications of toxicology and pharmacokinetics for exposure assessment. Journal of Exposure Analysis and Environmental Epidemiology, Suppl 1: 189-207.
- Vater ST, Velazquez SF, Cogliano VJ (1995). A case study of cancer data set combinations for PCBs. Regulatory Toxicology and Pharmacology 22: 2-10.
- Velazquez SF, Schoeny R, Rice GE, Cogliano VJ (1996). Cancer risk assessment: historical perspectives, current issues, and future directions. Drug and Chemical Toxicology 19(3): 161-185.
- Cogliano VJ, Hiatt GFS, Den A (1996). Quantitative cancer risk assessment for vinyl chloride: indications of early-life sensitivity. Toxicology 111: 21-28.
- Maull EA, Cogliano VJ, Siegel Scott C, Barton HA, Fisher JW, Greenberg M, Rhomberg L, Sorgen SP (1997). Trichloroethylene health risk assessment: a new and improved process. Drug and Chemical Toxicology 20(4): 427-442.
- Cogliano VJ (1997). Plausible upper bounds: are their sums plausible? Risk Analysis 17(1): 77-84.
- Cogliano VJ (1998). Assessing the cancer risk from environmental PCBs. Environmental Health Perspectives 106(6): 317–323.
- Brouwer A, Longnecker MP, Birnbaum LS, Cogliano J, Kostyniak P, Moore J, Schantz S, Winneke G (1999). Characterization of potential endocrine-related health effects at low-dose levels of exposure to PCBs. Environmental Health Perspectives 107(suppl 4): 639-650.
- Scott CS, Cogliano VJ, eds (2000). Trichloroethylene health risks—state of the science. Environmental Health Perspectives 108(suppl 2).
- Woodruff TJ, Caldwell J, Cogliano VJ, Axelrad DA (2000). Estimating cancer risk from outdoor concentrations of hazardous air pollutants in 1990. Environmental Research Section A 82: 194-206.
- -Cogliano VJ, Scott CS, Caldwell JC, Farland WH (2001). Trichloroethylene: using new information to improve the cancer characterization. Human and Ecological Risk Assessment 7(4): 755-766.

#### Authorship or Co-Authorship of Major EPA Scientific Publications

- Methodology for evaluating potential carcinogens in support of reportable quantities under CERCLA section 102, EPA/600/8-89/053, June 1988.
- Evaluation of the Potential Carcinogenicity of Lead and Lead Compounds, external review draft, EPA/600/8-89/045A, March 1989. Peer-reviewed by EPA's Science Advisory Board and Clean Air Scientific Advisory Committee in public meetings.
- Evaluation of the potential carcinogenicity of [name of compound], EPA/600/8-91/nnn, August 1991 [series of 191 carcinogen profiles]. Peer-reviewed by independent scientists.
- PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures, EPA/600/P-96/001F, cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=12486, September 1996. Peer-reviewed by a panel of independent scientists in a public meeting.

- Principal Investigator/Program Director (Last, first, middle): COGLIANO, Vincent James
- Toxicological Review of Vinyl Chloride, EPA/635R-00/004, www.epa.gov/iris/subst/1001.htm, May 2000. Peer-reviewed by a panel of independent scientists.
- Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures, EPA/630/R-00/002, cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=20533, August 2000. Peer-reviewed by EPA's Science Advisory Board in a public meeting.
- Trichloroethylene Health Risk Assessment, external review draft, EPA/600/P-01/002A, cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=23249, August 2001. Peer-reviewed by EPA's Science Advisory Board in a public meeting.
- Supplemental Guidance for Assessing Cancer Susceptibility from Early-Life Exposure to Carcinogens, external review draft, EPA/630/R-03/003, cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=55446, February 2003. Peer-reviewed by EPA's Science Advisory Board in a public meeting.
- Guidelines for Carcinogen Risk Assessment, draft final, NCEA-F-0644A, cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=55445, March 2003. Peer-reviewed by EPA's Science Advisory Board in public meetings in 1997 and 1999.

#### Books and Book Chapters

- Preuss PW, Cogliano VJ, White PD (1989). The perils of prudence. In: Mohr U, Bates DV, Dungworth DL, Lee PN, McClellan RO, Roe FJC, eds, Assessment of Inhalation Hazards: Integration and Extrapolation Using Diverse Data. Berlin: Springer-Verlag, 337-347.
- Hiatt GFS, Cogliano VJ, Becker RA, Siegel DM, Den AR (1993). Vinyl chloride action levels: indoor air exposures at a Superfund site. In: U.S. DHHS, ed, Hazardous Waste and Public Health: International Congress on the Health Effects of Hazardous Waste. Princeton: Princeton Scientific Publishing.
- Velazquez SF, Schoeny R, Cogliano VJ, Rice GE (1996). Cancer risk assessment: historical perspectives, current issues, and future directions. In: Fan AM, Chang LW, eds, Toxicology and Risk Assessment: Principles, Methods, and Applications. New York: Marcel Dekker, 219-243.
- Cogliano VJ, Luebeck EG, Zapponi GA, eds (1999). Perspectives on biologically based cancer risk assessment. New York: Kluwer Academic/Plenum Publishers.
- Cogliano VJ (2001). Considerations for setting reference values for environmental PCBs. In: Roberston LW, Hansen LG, eds, PCBs: Recent Advances in the Environmental Toxicology and Health Effects. Lexington: University of Kentucky Press.
- Cogliano VJ, Caldwell JC, Scott CS (2001). Risk assessment and risk management in the European Community and in the United States. In: Chyczewski L, Niklinski J, Pluygers E, eds, Endocrine Disrupters and Carcinogenic Risk Assessment. Amsterdam: IOS Press.
- Cogliano VJ, Caldwell JC, Scott CS (2001). The use of modeling in risk assessment. In: Chyczewski L, Niklinski J, Pluygers E, eds, Endocrine Disrupters and Carcinogenic Risk Assessment. Amsterdam: IOS Press.

#### C. Ongoing Research Support

European Commission
US Environmental Protection Agency
US National Institute of Environmental Health Sciences

See page 13 (Other active support) for grant titles and grant numbers

#### BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2. Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES**.

NAME	POSITION TITLE		
Marie Beatrice Secretan	Scientist		
EDUCATION/TRAINING (Begin with baccalaureate or other initial	professional education, su	ich as nursing, and inc	lude postdoctoral training.)
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Geneva, Switzerland	Licence (BSc)	1985-1989	Biochemistry
University of Geneva, Switzerland	Diplome (MSc)	1989-1991	Biochemistry
St. Bartholomew and the Royal London School of Medicine and Dentistry, London, UK	PhD	1992-1996	Toxicology
Ibidem	Post-doc	1996-1997	Chemical carcinogenesis
Harvard School of Public Health, Boston, MA	Post-doc	1998-2001	Cancer cell biology
UCLA School of Public Health, Los Angeles, CA	Post-doc	04-06 2001	Cancer cell biology
IARC/WHO, Lyon, France	Post-doc	2001-2002	Gene-environment interactions

# Work experience

PHS 398/2590 (Rev. 05/01)

<u>Sept. 2002 - present:</u> Unit of Carcinogen Identification and Evaluation, IARC/WHO, Lyon, France Responsible for the checking of manuscripts for the publication of "IARC monographs on the evaluation of carcinogenic risks to humans", published by IARC. Current monographs are:

- Active tobacco smoking: An update
- Passive tobacco smoking
- · Some drinking-water disinfectants and contaminants, including arsenic
- Chemopreventive effects of fruits and vegetables (for the Unit of Chemoprevention)
- Betel-guid and areca nut chewing

Sept. 2001 - Aug. 2002: Unit of Gene-Environment Interactions, IARC/WHO, Lyon, France (laboratory of Dr. E. van Dyck)

Biological characterisation of RDM-1, a novel Rad52 homologue

<u>Jan. 1998 - June 2001:</u> Dept. of Cancer Cell Biology, Harvard School of Public Health, Boston, MA (Jan. 1998 – Feb. 2001) and Dept. of Environmental Health, UCLA School of Medicine and Public Health, Los Angeles, CA (March-June 2001): laboratory of RH Schiestl

- Double strand break repair by recombination in DNA repair deficient CHO cell lines
- P53 involvement in X-ray induced intrachromosomal recombination in mice
- Delayed re-induction of p53 and oxidative stress in irradiated human diploid fibroblasts

Oct. 1992 - Oct. 1997: Dept. of Toxicology, St. Bartholomew & the Royal London School of Medicine and Dentistry, London, UK, under the supervision of Dr. CJ Powell

Relationship between toxicity, mitogenicity and carcinogenicity in the rat liver

Oct. 1991 - Sept. 1992: GlaxoWellcome, Biomedical Research Institute, Geneva, Switzerland, under the supervision of Dr. J. Whelan

Activation by NFkB of the ELAM-1 promoter sequence in S.Pombe

Oct. 1990 – July 1991: ISREC, Dept. of Chemical Carcinogenesis, Epalinges s/ Lausanne, Switzerland, under the supervision of Dr RM Tyrrell

Determination of DNase I hypersensitive sites in the human heme oxygenase gene

Page 8	Biographical Sketch Format Page
	* -

#### Work experience in scientific writing

Reports: compilation, summarisation and critical evaluation of toxicology reports for the European Union review on food contact chemicals (indirect food additives).

<u>Translations</u>: Biomedical translations of questionnaires used for surveys in hospitals and other medical institutions from French into English and vice-versa, and German into English.

#### Languages and computer literacy

<u>Languages</u>: French (mother tongue), English (excellent), German (excellent), Italian (good), Spanish (basic knowledge)

Computer literacy: Word, Excel, Power Point, Harvard Graphics, Harvard ChartXL, Cricket Graph, Gene Construction Kit, EndNote

#### Fellowships and bursaries

Jan. 1999 - Dec. 1999: Post-doctoral fellowship awarded by the Swiss Cancer League.

Jan. 1998 - Dec. 1998: Post-doctoral fellowship awarded by the Swiss National Fund.

Oct. 1992 - April 1996: PhD studentship awarded by GlaxoWellcome, R & D, Ware, UK.

March 1994 and 1996: Student bursary awarded by the British Toxicology Society for the participation at international scientific meetings.

#### **Publications**

- Rugo RE, **Secretan MB** and Schiestl RH (2002) X-radiation causes a persistent induction of reactive oxygen species and a delayed reinduction of TP53 in normal human diploid fibroblasts. *Radiation Resarch*, **158** (2), 210-9.
- Aubrecht J, **Secretan MB**, Bishop AJ and Schiestl RH (1999) Involvement of p53 in X-ray induced intrachromosomal recombination in mice. *Carcinogenesis*, **20** (12), 2229-36.
- **Secretan MB**, Cottrell S and Powell CJ (1997) Progression of precarcinogenic effects in methapyrilene-treated rats. *Human Exp. Toxicol.* **16 (1)**, 53.
- Freathy C, Cottrell S, **Secretan MB** and Powell CJ (1997) Young rats are more susceptible than old rats to the relative induction of preneoplastic lesions after a 13 week exposure to a non-genotoxic carcinogenic drug. *Human Exp. Toxicol.* **16** (1), 46.
- Powell CJ and **Secretan MB** (1995) Induction and reversibility of genotoxic and non-genotoxic carcinogen-induced altered hepatocyte foci in rats. *Toxicol. Pathol.* **23** (6), 757-758.
- Cottrell S, **Secretan MB** and Powell CJ (1995) Chronic methapyrilene administration increases cell proliferation in diploid hepatocytes with a concomitant decrease in polyploidisation. *Human Exp. Toxicol.* **14**, 770.
- **Secretan MB** and Powell CJ (1995) Reversibility of the toxic and precarcinogenic effects of methapyrilene in rats. *Human Exp. Toxicol.* **14**, 769.
- **Secretan MB** and Powell CJ (1994) Early toxic and carcinogenic effects of methapyrilene in rat liver. *Toxicol. Lett.* **74** (suppl. 1), 77.
- Powell CJ, **Secretan MB** and Cottrell S (1994) Preneoplastic changes during non-genotoxic hepatocarcinogenesis. In: Skouteris, G.G. (Ed.) *Liver carcinogenesis*, *NATO ASI Series*, *Vol. H88*, pp. 215-229. Berlin Heidelberg: Springer-Verlag.

Principal Investigator/Program Director (Last, first, middle): COGLIANO Vincent James

# Manuscripts in preparation

# (b)(4), (b)(6)

**Secretan MB**, Cottrell S and Powell CJ. The early effects of a non-genotoxic carcinogen on cell proliferation and altered hepatocyte foci are only partly reversible.

**Secretan MB**, Cottrell S and Powell CJ. Inhibitory effects of paracetamol (acetaminophen) on the induction of altered hepatocyte foci in Han-Wistar rats.

#### BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2. Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES**.

NAME	POSITION TITLE	
EL GHISSASSI Fatiha	Scientist	

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Scientific and Medical University of Grenoble, France	B Sc	1980	Structural and Metabolic Biochemistry and Degree in Organic Chemistry
University Claude Bernard, Lyon I	Master of Science	1982	Molecular Biology and Physicochemistry; Endocrine Biochemistry
University Claude Bernard, Lyon I	DEA	1983	Biochemistry Option Pharmacology
University Claude Bernard, Lyon I	Doctorate in Sciences	1986	Biochemistry
University Claude Bernard, Lyon I, France	PhD	1995	Biochemistry (Toxicology)

#### **Positions**

Aug 02 to present Scientist, Carcinogen Identification & Evaluation, IARC, Lyon (Supervisor Dr R. Baan). Reviewed and ensured the scientific accuracy of IARC monograph, summaries of studies on absorption, distribution, metabolism and excretion; toxic effects; reproductive and developmental effects; and genetic and related effects (section 4 of each monograph). This was done for the monographs on "tobacco smoke" (vol 83) and "some drinking-water disinfectants and contaminants, including arsenic" (vol 84) Participated as co-rapporteur in section 4 in the IARC monograph meeting on "Betel Quid and areca-nut chewing and some related nitrosamines" (vol 85)

- Feb 02-July 02 Visiting Scientist in Molecular Carcinogenesis Group (Chief: Dr P. Hainaut), IARC, Lyon 'Induction of p53 protein activity by the aminothiol WR2721 (amifostine): a possible involvement of polyamine moiety in the mechanism of cytoprotection'
- 1997-2001 Post-doctoral fellowship in Léon Bérard Center, Fundamental and Applied Oncology
  Department, INSERM U453, Lyon "Study of biologic function of p53 target gene, BTG2: effect
  of its expression on neuronal proliferation, differentiation and apoptosis of PC12 cells"
  Supervisor Pr A. Puisieux. Post-doctoral fellowship awarded by the Regional Center of
  Research on Cancer 'Léon Bérard'
- Post-doctoral fellowship in Unit of Mechanisms of Carcinogenesis (MCA), IARC, Chief Dr R. Montesano "Modulation of DNA-Binding activity of the tumour supressor protein p53 by an antioxidant Amifostine: mechanism of cytoprotection" Supervisor Dr P. Hainaut Post-doctoral fellowship awarded by IARC and USB Pharma
- 1991-1996 Ph.D Thesis in Unit of Environmental Carcinogens and Host Factors, (ECH), IARC, Chief Pr H. Bartsch "Study of metabolic factors which could modulate the formation of ethenoadducts, potential biomarkers of carcinogenesis by vinyl chloride and by lipid peroxidation " Supervisor Dr A. Barbin Student fellowship awarded by IARC, INSERM and Elf-Atochem

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- 1987–1991 Technician in Unit of Environmental Carcinogens and Host Factors, IARC "Comparison of effects of diet and gut bacteria on microcapsule trapping and benzo(a)pyrene metabolism" Supervisor Dr I. O'Neill. "N-nitrosamine metabolites analysis by Gas Chromatography-Thermal-Energy-Analyser (GC-T.E.A)" Supervisor Dr H. Ohshima
- 1982-1987 Studentship in Doctoral Biochemistry third cycle. Laboratory of Endocrine biochemistry, in Sainte-Eugénie Hospital, Lyon Sud. "Analysis of bile acids and cholesterol by gas chromatography in meconium of normal newborn and new-born affected by cystic fibrosis" Supervisor Pr A. Revol, Director Pr D. Gautheron

#### **PUBLICATIONS**

- El Ghissassi F., Valsesia-Wittmann S., Falette N., Duriez C., Walden P.D. & Puisieux A. (2002) BTG2(TIS21/PC3) induces neuronal differentiation and prevents apoptosis of terminally differentiated PC12 cells. *Oncogene*, 21, 6772-6778
- North S., Pluquet O., Maurrici D., El Ghissassi F. & Hainaut P. (2002) Restoration of wild-type conformation and activity of a temperature-sensitive mutant of p53 (p53<sup>v272M</sup>) by the cytoprotective aminothiol WR1065 in the esophageal cancer cell line TE-1. *Mol Carcinog*, **33**, 181-188
- North S., El Ghissassi F., Pluquet O., Verhaegh G. & Hainaut P. (2000) The cytoprotective aminothiol WR1065 activates p21waf-1 and down regulates cell cycle progression through a p53-dependent pathway. *Oncogene*, **19**, 1206-14 North S. and El Ghissassi F. contributed equally to this paper
- Cortes U., Moyret-Lalle C., Falette N., Duriez C., **Ghissassi E.F.**, Barnas C., Morel AP., Hainaut P., Magaud J-P. & Puisieux A. (2000) BTG gene expression in the p53-dependent and independent cellular response to DNA damage. *Mol Carcinog*, **27**, 57-64
- El Ghissassi F., Barbin A. & Bartsch H. (1998) Metabolic activation of vinyl chloride by rat liver microsomes: low-dose kinetics and involvement of cytochrome P450 2E1. *Biochem Pharmacol*, **55**, 1445-1452
- Guichard Y., El Ghissassi F., Nair J., Bartsch H. & Barbin A. (1996) Formation and accumulation of DNA ethenobases in adult Sprague-Dawley rats exposed to vinyl chloride. *Carcinogenesis*, 17, 1553-1559
- El Ghissassi F., Barbin A., Nair J. & Bartsch H. (1995) Formation of 1,N<sup>6</sup>-ethenoadenine and 3,N<sup>4</sup>-ethenocytosine by lipid peroxidation products and nucleic acids bases. *Chem. Res. Toxicol*, 8, 278-283
- El Ghissassi F., Boivin S., LeFrançois L., Barbin A. & Marion M.J. (1995) Glutathione transferase Mu1-1 (*GSTM1*) genotype in individuals exposed to vinyl chloride in relation to "vinyl chloride disease" and liver angiosarcoma. *Clinical chemistry (Suppl)*, 41, 1922-1924
- Sierra R., Ohshima H., Munoz N., Teuchmann S., Pena A-S., Malaveille C., Pignatelli B., Chinnock A., El Ghissassi F. & Chen C. (1991) Exposure to N-nitrosamines and other risk factors for gastric cancer in Costa Rican children. IARC-Sci-Publ., 105, 162-167
- O'Neill I.K., Goldberg M., El Ghissassi F. & Rojas-Moreno M. (1991) Dietary fibre, fat and beef modulation of colonic nuclear aberrations and microcapsule trapped G.I metabolites of Benzo(a)pyrene treated C57~B6 mice consuming human diets. *Carcinogenesis*, **12**, 175-180

# Other Active Support - Dr V. J. Cogliano, Principal Investigator

(b) (4)

1/01/03 - 31/12/03 \$52,100



The IARC Monographs 2003

No overlap with the NCI cooperative agreement. Funds used to support the 3<sup>rd</sup> Monographs meeting each year and scientific or advisory meetings relevant to the Monographs Programme.

R-82928801-1

1/06/03 - 31/05/03



US Environmental Protection Agency

\$22,100

International Research, Evaluation and Education in Environmental Carcinogenesis

No overlap with the NCI cooperative agreement. Funds used to support the 3<sup>rd</sup> Monographs meeting each year and scientific and advisory meetings relevant to the Monographs Programme.

US National Institute of Environmental Health Sciences

stences (no time limit) \$79.600 in 2003



Donation in support of the Monographs Programme, used to support the 3<sup>rd</sup> Monographs meeting each year and scientific and advisory meetings relevant to the Monographs Programme.

(Other key personnel have no active support)

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Principal Investigator/Program Director (Last, first, middle): COGLIANO, Vincent James

PROGRESS REPORT SUMMARY	GRANT NUMBER CA33193-21	
	PERIOD COVERED BY THIS R	EPORT
PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR Cogliano, Vincent James	FROM 09/01/2002	THROUGH 08/31/2003
APPLICANT ORGANIZATION		L
International Agency for Research on Cancer		
TITLE OF PROJECT (Repeat title shown in Item 1 on first page)		
Evaluation of Carcinogenic Risks to Humans		
A. Human Subjects (Complete Item 6 on the Face Page)     Involvement of Human Subjects	Since Previous Submission	nge
B. Vertebrate Animals (Complete Item 7 on the Face Page)		
Use of Vertebrate Animals No Change	Since Previous Submission	ange
SEE PHS 2590 INSTRUCTIONS.		
WOMEN AND MINORITY INCLUSION: See PH\$ 398 Instructions. Us Targeted/Planned Enrollment Format Page.	e Inclusion Enrollment Report Format	Page and, if necessary,
Has there been a change in the other support of k	key personnel since the last	reporting period?
The present active grants, which continue the level o	f support from previous years	, are listed on page 13.
Will there be, in the next budget period, a signific from what was approved for this project?	ant change in the level of el	fort for key personnel
See attached table, page 17.		
Is it anticipated that an estimated unobligated batthan 25% of the current year's total budget?  No.	ance (including prior year o	carryover) will be greater
REPORT ON RESEARCH PROGRESS		
a. Specific aims of the IARC Monographs on the Excritically review and evaluate the strength of the total biological, physical, and chemical agents, complex managements.	published scientific evidence ixtures, and environmental cir	for carcinogenic risk from rcumstances to which

- a. Specific aims of the IARC Monographs on the Evaluation of Carcinogenic Risks to Humans are to critically review and evaluate the strength of the total published scientific evidence for carcinogenic risk from biological, physical, and chemical agents, complex mixtures, and environmental circumstances to which humans are exposed. Agents and exposures are classified by levels of evidence for human carcinogenicity, which range from carcinogenic to humans (Group 1) to probably not carcinogenic to humans (Group 4). These classifications are intended to guide and assist the development of strategies for cancer prevention. The long-term goal is to publish evaluations of all environmental agents suspected as causes of human cancer, and to re-evaluate those for which evidence was incomplete when previously reviewed, whenever new findings provide additional evidence that may change a previous evaluation. These aims have not been modified since the competing application dated 28 June 1999.
- b. Studies and Results. Two working group meetings to prepare volumes 84 and 85 of the *IARC Monographs* were completed during grant year 21 (1 Sept 2002 through 31 Aug 2003). Up-to-date lists of classifications, summaries of all evaluations, planned future activities, and related information have been posted on the *Monographs* website at <a href="http://monographs.iarc.fr">http://monographs.iarc.fr</a>, where they are freely available as soon as each volume is printed. From volume 1 (1972) through volume 85 (2003), the *Monographs* Programme has evaluated 890 agents and exposures in the human environment for evidence of carcinogenicity, many of them more than once as new scientific evidence relevant to evaluations of carcinogenicity has been published. An electronic version containing the complete, corrected text of all *Monographs* ever published has now been prepared (updated after each new volume is printed) from GMA Industries, Inc, Annapolis MD 21401 (<a href="http://www.gmai.com">http://www.gmai.com</a>).

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olume is printed) from GMA Industri	es, Inc, Annapolis MD
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Volume 84, Some Drinking Water Disinfectants and Contaminants, Including Arsenic (15-22 October 2002) (in preparation).

This volume supplements, but does not duplicate, *Monograph* volume 52 (1991) on chlorination and its byproducts. The new volume also evaluates chloramine, chloramidation, and certain chlorination byproducts not previously reviewed. It also addresses the serious problem of arsenic, found in drinking water. A brief summary of the meeting that is posted on the *Monographs* website at <a href="http://monographs.iarc.fr">http://monographs.iarc.fr</a> is attached as Appendix 1. Invited participants in the meeting are listed in Appendix 2.

Volume 85, Betel-Quid and Areca-Nut Chewing and Some Related Nitrosamines (11-18 June 2003) (in preparation).

This volume evaluates various non-tobacco cultural habits that appear to pose a carcinogenic risk. Special emphasis is placed on habits that are practiced in certain developing countries, notably those in South Asia. An outline of the meeting is attached as Appendix 3. Invited participants in the meeting are listed in Appendix 4.

In addition to the two Monographs, two further meetings were convened during this period.

- A scientific meeting to prepare an IARC Scientific Publication on mycotoxins, including aflatoxins and fumonisins, and strategies for their control took place in Lyon in November 2002. This effort is an outgrowth of *Monographs* volume 82 and its reviews of aflatoxins and fumonisins. It was conducted jointly with other elements of the World Health Organization and the Food and Agriculture Organization of the United Nations. (This meeting and the resulting publication was not funded by the Cooperative Agreement, but is mentioned here for the sake of completeness in describing the *Monographs* Programme activities for the year.)
- An ad-hoc Scientific Advisory Group on priorities for future evaluations was convened in Lyon in February 2003 to review nominations of chemicals and complex chemical mixtures for evaluation by the Monographs Programme during the next five years. Nominations were solicited world-wide during the second half of 2002, making extensive use of the internet to reach the widest possible community of potential participants. (This meeting and the resulting publication was not funded by the Cooperative Agreement, but is mentioned here for the sake of completeness in describing the Monographs Programme activities for the year.)
- c. Significance. The evaluations published in the IARC *Monographs* are intended to assist national and international authorities to formulate carcinogen risk assessments and to make risk management decisions, and to inform expert researchers as well as the general public regarding the evidence for carcinogenicity of environmental agents and exposures of all kinds.
- **d. Plans** for the period from 1 Sept 2003 through 31 Aug 2004 include three volumes of the IARC *Monographs*:
- > Volume 86, Some metals used in the hard metal and semiconductor industry (October 2003).
- Volume 87, Lead and lead compounds (February 2004).
- Volume 88, Smokeless tobacco (June 2004).

In addition to the three *Monographs* working groups, a further meeting is planned to complete the IARC Scientific Publication on mycotoxins. (This meeting and the resulting publication is not funded by the Cooperative Agreement, but is mentioned here for the sake of completeness in describing the *Monographs* Programme activities for the year.)

#### e. Publications

IARC (2002) IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 81: Man-Made Vitreous Fibres.

IARC (2002) IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 82: Some Traditional Herbal Medicines, Some Mycotoxins, Naphthalene and Styrene.

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# Principal Investigator/Program Director (Last, first, middle): COGLIANO, Vincent James

- IARC (2003) Report of an Ad-Hoc *IARC Monographs* Advisory Group on Priorities for Future Evaluations, IARC Internal Report No. 03/001.
- IARC (in preparation) IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 83: Tobacco Smoke and Involuntary Smoking.
- IARC (in preparation) IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 84: Some Drinking Water Disinfectants and Contaminants, including Arsenic.
- IARC (in preparation) IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 85: Betel-Quid and Areca-Nut Chewing and Some Related Nitrosamines.
- **f. Project-generated resources.** The IARC *Monographs* are published and distributed to government agencies and scientific libraries. Summaries are available on the internet at <a href="http://monographs.iarc.fr">http://monographs.iarc.fr</a>.

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# PROGRESS REPORT SUMMARY - Addition to page 14

# Will there be, in the next budget period, a significant change in the level of effort for key personnel from what was approved for this project?

Name	Level of effort year 21	NCI funding year 21*	Level of effort year 22	NCI funding year 22 *	Remarks
J M Rice	(b)(4), (b)(	6)			Retired 31 October 2002
R Bann					
Y Grosse					Now funded entirely from other sources
K Straif					
C Partensky				-	Retired 31 January 2003
B Secretan	Ī			_	Increase in effort
D McGregor					Expiration of contract
V J Cogliano					Hired as head of programme March 2003
F El Ghissassi					Hired to assist in checking of Monographs. 50% funded from other sources.

<sup>\*</sup>NCI funding is % of level of effort (previous column) paid by NCI grant