

IUPAC Division of Chemistry and the Environment (DCE)
Minutes of Division Committee Meeting
May 15 and 16, Gaithersburg, Maryland, USA

Start time: 09:00 a.m. Saturday 15 May 2004

Location: AOAC International Headquarters, 481 N. Frederick Avenue, Suite 500

Present: Ken Racke (President), Patrick Holland (Secretary), Werner Klein (Past-President), Leo Klasinc (TM), Laura McConnell (TM), Willie Peijnenburg (TM), Nicola Senesi (TM), Don Wauchope (TM), Walter Benson (AM), Richard Cantrill (AM), Ole Hertel (AM), Pan-Ming Huang (AM), Werner Kördel (AM), Keiji Tanaka (AM), Melissa Fitzgerald (NR, Australia), Yong-Hwa Kim (NR, Korea), Edgard Resto (NR, Puerto Rico).

Also contributing: Al Pohland (AOAC International, former TM Commission on Food Chemistry); John Malin (ACS International Affairs Leader, CHEMRAWN); Bob Maybury (IOCD); Patrick Wilson (US-FDA, Office of International Programs).

Apologies: Elke Anklam (TM), Patrick Dysseler (TM), Yehuda Shevah (AM) Petr Fedotov (NR, Russia).

Acknowledgements: Thanks to AOAC International and Executive Director James Bradford for hosting the meeting and to Garlon Riegler and Al Pohland for the excellent local arrangements.

0. Executive Summary

A total of seventeen Division Committee members and four visiting contributors participated in the 2004 meeting held at AOAC International Headquarters in Gaithersburg, MD, USA. The progress and completion of existing projects was reviewed. A total of eight projects have been completed since the 2003 meeting in Ottawa, and final reports are largely published or in-press. One existing project was discontinued due to lack of progress. Three project proposals first reviewed at the Ottawa GA were again considered, with one proposal rejected, one revised proposal conditionally approved, and one proposal placed on hold pending revision. A total of eight new project proposals which have completed the external peer review process were considered, and it was decided to approve four of the proposals for immediate funding, conditionally approve three of the proposals, and reject one proposal. Discussion of future directions for the Division occurred, and a SWOT analysis was completed. It was agreed to develop proposals for revitalized programs related to food chemistry and chemistry of environmental compartments. The chairman of a new Nominating Committee was appointed to facilitate election of new committee members by the time of the next Division Committee meeting planned for 13-14 August 2005 in Beijing, China.

1. Introduction and Review of DCE Activities

- President's welcome and introduction emphasized four primary expected results for the meeting:
 1. Fully integrate new members into the work of the Division Committee (DC)
 2. Begin the process of developing a long-term strategy
 - SWOT analysis, discussion of relevance of DCE and ideas for future directions
 3. Reach funding decisions for peer-reviewed project proposals

4. Agree on future plans for the DC
 – Elections, 2005 General Assembly (GA) and Congress in Beijing
- Minutes confirmed for DCE meeting at GA, Ottawa 2003 and for phone conference February 2004.
 - Recent history of DCE:
 - Formerly known as the Applied Chemistry Division (ACD)
 - Work in ACD previously done by standing commissions, which were subject to some modifications/mergers in recent years.
 - Water Chemistry – later modified to Soil and Water Chemistry
 - Oils and Fats – later merged into Food Chemistry
 - Mycotoxins – later merged into Food Chemistry
 - Atmospheric chemistry
 - Agrochemicals – became Agrochemicals and the Environment
 - Fundamental environmental chemistry
 - Moved to project-based system in 2001
 - Standing commissions abolished
 - Division committees to manage activities
 - Primary IUPAC work unit now the project team working under a specifically approved and funded project
 - Anyone can submit a project proposal to IUPAC
 - Four DCE subcommittees formed in 2002 to assist work of DC and provide leadership for specific subject areas
 - Food Chemistry (Patrick Dysseler, Chair)
 - Biophysico-Chemical Processes in Environmental Systems (Nicola Senesi, Chair)
 - Chemistry of Environmental Compartments (Yehuda Shevah, Chair)
 - Crop Protection Chemistry (Ken Racke, Chair)
 - Terms of Reference (revised following discussion)

Through its internationally recognized membership and project teams, the Division of Chemistry and the Environment (DCE) will provide unbiased and timely authoritative reviews on the behavior of chemical compounds in food and the environment. The DCE will undertake both fundamental and applied evaluations that contribute to solving environmental problems and enhancing the quality of food on a global scale.
 - Subcommittee Reports
 - Food Chemistry
 Informal report from Richard Cantrill in absence of chairman. The SC was formed following dissolution of the commissions on Oils/Fats and Food Chemistry. The latter specialized in food contaminants, especially mycotoxins. Revitalization of project activities has proven difficult. However, the Oils & Fats workshop in Tunisia and 11th IUPAC Symposium on Mycotoxins and Phycotoxins at Bethesda MD are proceeding (see below).
 - Biophysico-Chemical Processes in Environmental Systems
 Nicola Senesi tabled a report on SC activities. Projects have exclusively involved production of books containing authoritative chapter reviews by invited expert. Volume 9 of the Wiley series on Analytical and Physical Chemistry in Environmental Systems was published during 2004. Volume 10 is underway (approved project) and project proposals for new books have been submitted (see below). The closer

integration into DCE was noted and planning is now extending to some extension activities. Nicola Senesi will travel to China as the official IUPAC representative and invited lecturer to the 4th International Symposium on Interactions of Soil Minerals with Organic Components and Microorganisms (ISMOM) in Wuhan, China 20-23 September 2004 (DP to provide IUPAC slides and a 1 page brochure on DCE). Nicola Senesi also represents DCE on the IUPAC Commission for Chemical Education and the Interdivisional Subcommittee on Green Chemistry. The latter body has been very active under the leadership of Pietro Tundo.

- Chemistry of Environmental Compartments
No formal report of activities was provided. In the absence of the chairman, TMs present summarized progress on current projects (see below).
- Crop Protection Chemistry
Ken Racke tabled a report on activities. The SC is focused on advancing ongoing projects, generating ideas for future projects, and sponsoring technology transfer activities which highlight IUPAC project outcomes. A progress report on several ongoing projects was offered; three projects have been recently completed with publication of final reports and six additional projects are in progress (see below). A highly successful international workshop was held in Seoul, Korea during October 2003 with a report published in *Chemistry International*. Future technology transfer activities include an international workshop in San Jose, Costa Rica during February 2005 and an international congress in Kobe, Japan during August 2006.

2. Existing Projects and Activities

- Progress reports for ongoing projects, including publications and current budget status to 30 April 2004, are summarized in the table appended to the minutes.
- A total of 8 projects have been completed since the 2003 meeting in Ottawa, and final reports are under evaluation by the DP, in-press, or already published:
 - 610/72/97 (Van Leeuwen) Final report (Book) published.
 - 630/24/95 (Koerdel) Final report under evaluation by DP.
 - 1999-009-1 (Hamilton) Final report published.
 - 1999-010-1 (Anklam) Final report in-press.
 - 1999-017-2 (Hamilton) Final report published.
 - 1999-030-2 (Zhang) Final report in-press.
 - 1999-034-1 (Slanina) Final report in-press.
 - 2002-046-1 (Kim) Final report published.
- Several existing projects have been completed and good progress is being made on most others. One existing project was discontinued due to lack of activity. A new project leader for 1999-013-2 had been requested by the DC during the GA in Ottawa, but in absence of any leadership or progress since 2000 this effort will be officially discontinued. DP to inform IUPAC Secretariat of this decision.
- Discussion occurred regarding availability of oils and fats methods, including potential need for an 8th IUPAC edition.
 - Blackwell has sold out of 7th edition although copies of 7th edition supplement are still available.
 - No standing commission deals with this historic IUPAC activity. The former Fats and Oils Commission, which previously supervised the effort, was merged with the Food Chemistry Commission. Any coordinated effort was killed with this reorganization of the Division and the later abolishment of the Commission structure.

- Albrecht Dieffenbacher had prepared draft content for an 8th edition but this mainly covers further new or revised methods and does not contain the inter-lab validations published in PAC. A great deal of editing is required before it could go to a publisher. This was confirmed to DS by Marshall Pike, former member of the Oils and Fats Commission.
- An ISO Committee (ISO/TC 34/SC 11) on oils and fats is now active. Many IUPAC methods were taken up by ISO and adopted with further validation.
- AOCS has a compendium of up-to-date methods based on IUPAC and also containing the validations. The ISO and AOCS methods must be purchased.
- ISO/TC 34/SC 11 met recently and reviewed reports from other organizations. They suggest that IUPAC methods are out of date and publication could be harmful and confusing. AOCS met recently and agreed with this point.
- Richard Cantrill (AOCS) proposed and the DC agreed to the following action plan:
 - IUPAC should take no further steps toward publishing an 8th edition.
 - The AOCS cover page/heading for published methods will be modified to reflect the IUPAC origin for methods harmonized/originating with IUPAC.
 - A summary should be published (Richard Cantrill to prepare) of historic activities, to include a table listing the harmonized methods and giving original PAC references and IUPAC methods published. This could also be used on the IUPAC web site.

3. Budget

- Review of existing project budgets (approved vs. actual) – mainly on-track.
- Total Division budget for 2004-2005 biennium of \$68,000 with 25% allotted for administrative expenses (\$17,000) and 75% for new project activities (\$51,000).
- Estimate of administrative needs (Maryland TM/AM/NR, Beijing AM/NR). Approximately \$11,000 spent for Maryland meeting, leaving around \$6,000 for AM/NR support in Beijing (TM attendance to GA paid by Bureau).
- New project funds already committed for the biennium total \$17,500. DCE funds remaining for new projects during 2004-2005 are \$33,500. Discussion related to new projects agreed for funding from these remaining funds appears in Section 5 of the minutes.
- The Division also manages book royalty funds from past projects, and at present \$11,415 are available based on the Wiley book series on Analytical and Physical Chemistry in Environmental Systems. The Division Committee accepted Nicola Senesi's proposal that the money be assigned to two current projects for new books in the same series:
 - 2004-015 (Wilkinson) \$5000 assigned to a newly approved project (see Section 5).
 - 2002-062 (Senesi) Remainder of \$6400 assigned to ongoing project as had previously been agreed during the January (see appended table).

4. Future Directions for the Division

- DP Ken Racke stressed some important questions for consideration with respect to future directions for the DCE.
 - What key environmental and food problems or issues require focus?
 - Chemistry capacity-building in developing countries
 - Food quality and composition (e.g., transgenic crops)
 - Naturally occurring food toxins
 - Soil, water, and air contaminants

- Crop protection chemistry (environment, health)
 - What can be IUPAC's unique contribution?
 - Chemistry of the environment (a broad subject)
 - Areas requiring harmonization, critical evaluation, specific recommendations for improvement
 - International rather than country/regional approach and not neglecting developing countries
 - Academic, government, industry stakeholders to be involved
 - What strategic partnerships must be cultivated for the DCE to be successful?
 - How will we measure success as a Division?
 - What balance of traditional projects vs. books vs. conferences should we maintain?
 - Projects – Targeted at harmonized, unbiased and authoritative views; particularly focused on stakeholders with unmet needs including those in developing countries.
 - Technical books – Targeted at producing a state-of-the-art treatment for a select number of leading experts.
 - Workshops – Associated with communication of project outcomes, identification of new project areas, recruitment of expertise for IUPAC projects.
 - What is the optimal structure of the Division with respect to subcommittees?
 - How can the project leaders best be supported?
- As a first step toward development of a long-term strategy for the Division, a SWOT analysis was developed:

<p>Strengths – global audience, international viewpoint and approach rather than a national/regional one, good productivity, important issues for society, credibility, networks (individuals, institutions, cross discipline), flexibility in projects and funding, breadth (scholarly, applied, workshops/symposia), SC listing provides a way to recognize volunteers.</p>	<p>Weaknesses – token funding, reliant on enthusiasm and volunteers, high dependence on individuals (e.g., project leader), low influence of DC on project performance, weak peer review process in place for proposals and final reports, lack of recognition for efforts, low impact/visibility for PAC publications, lack of strategic direction, not all SC's are functional.</p>
<p>Opportunities – increase credibility through more rigorous project review (planning, outputs), increase inputs from developing countries, more emphasis on food chemistry (functional foods), increase leverage with other international organizations, more interdivisional projects, better use of electronic media (web, email), attracting funding from multiple sources.</p>	<p>Threats – losing relevance, losing intellectual property, losing vision, losing objectivity, being driven by randomly submitted project proposals, having lead on key areas taken by other organizations, slowness in addressing key issues of interest and project areas, not reaching the intended audience, capture by random projects, NAOs stop funding IUPAC, conflicts of interest in funding decisions.</p>

- Current areas of success that should continue include **crop protection chemistry** (projects, technology transfer) and **biophysico-chemical processes in environmental systems** (book projects). These areas have maintained high productivity and critical mass of networking for new project ideas in the post-commission era.

- **Food chemistry** is an area needing some renewed focus and revitalization.
 - Considering the large amount of activity in this area by international organizations (WHO/FAO/Codex, ISO) and trading blocks (EC), care has to be taken with overlap and ensuring coordination.
 - IUPAC also has some food related activities in the Human Health Division and the Commission of Biotechnology. However, IUPAC-DCE can continue to meet the needs for truly international and chemically centered advice in particular areas.
 - In addition to continuing activities in oils/fats, the following food areas were seen as appropriate for DCE: Trace contaminants (e.g. PAHs), natural toxins, trace elements, biotechnology, chemistry of food quality. Many members of the current Food Chemistry SC appear inactive and some do not respond to contacts. The omission of Barbara Szetke (Poland) was noted – a former active member.
 - FDA interest in food chemistry today covers natural toxins, dietary supplements, genetically modified plants, nutraceuticals, and homeland security issues.
 - A subcommittee was nominated to chart out a new direction on “Future of Food Chemistry and the Role for IUPAC”. Members included Melissa Fitzgerald*, Pan-Ming Huang, Elke Anklam, USDA representative (to be nominated by Laura McConnell or Don Wauchope), Richard Cantrill*, John Gilbert (Pat Holland to recruit), and Werner Klein (* = co-chairs). Mandate for the SC agreed as follows:
 - Evaluate international needs related to the chemistry of food (including a survey).
 - Discuss what is going on already within the international community, including ICSU unions and IUPAC.
 - Develop a proposal for how IUPAC should address this area from a program and project standpoint, including any structural changes (e.g., cross-divisional programs, new division).
 - Plan a workshop during the Beijing GA to finalize recommendations. This should be organized with cooperation of Human Health Division and Biotech Commission.

- Activities related to **chemistry of environmental compartments** also require further consideration and refinement. It is unclear whether soil/water and atmospheric chemistry are being addressed in an integrated fashion. It was agreed that a proposal should be developed for discussion at the Beijing GA with respect to future focus and cultivation of relevant projects related to soil, water, and atmosphere. Willie Peijnenberg agreed to work with SC Chairman Yehuda Shevah and also Leo Klasinc and Ole Hertel in developing this evaluation.

- Organizations which may assist with developing new project areas for collaboration and have publishing, conference and other extension outlets that may be useful to DCE include:
 - American Chemical Society (ACS) – Particularly the Agrochemicals and Environmental Chemistry Divisions.

- U.S. Food and Drug Administration (FDA) - Interest in food chemistry today covers natural toxins, dietary supplements, genetically modified plants, nutraceuticals and homeland security issues
 - Association of Official Analytical Chemists (AOAC) International – New methods and validation protocols.
 - FAO/WHO Joint Meeting on Pesticide Residues (JMPR) – Interested in cooperating with IUPAC on workshops/training. Neither FAO nor WHO can directly accept money from industry, yet industry has offered much needed funding for such training. IUPAC may be in a position to assist.
 - International Program on Chemical Safety (IPCS) – Have identified a number of critical project areas including POPs, mycotoxins in Africa, and chemical information communication.
 - Society of Environmental Toxicology and Chemistry (SETAC) – Wide network in environmental chemistry but some difficulties were noted with the aggressive management style of this organization.
- There is a need to improve access to IUPAC people resources. There are often difficulties in arranging for relevant external peer reviewers for new project proposals and in recruiting project team members from diverse affiliations. The IUPAC web listing of people is helpful but lacks information on skills and areas of expertise. An inventory of people/expertise/skills available to IUPAC is needed. This could readily be accomplished by the IUPAC Secretariat by adding 3 or 4 key words per person to the existing address information on the IUPAC website. **DP to write to John Jost to bring this up to the bureau meeting for discussion and action.**

5. New Projects

- Three project proposals discussed at the Ottawa GA were awaiting action, and 8 additional project proposals had been received and had completed the external peer review process. These 11 project proposals were the primary subject of discussion and funding decisions. The DC recognized the need for some prioritization or modification of funding allocations, since nearly \$100,000 of IUPAC funds were being requested and the Division only has \$33,500 of new money to allocate for the biennium. Decisions are summarized in the appended table and detailed discussions follow.
- Copies of all the pending proposals and peer review comments were distributed to the DC members, but it was noted that not all the proposals had been previously circulated within the DC. It had been the understanding of the DP and DS that the IUPAC Secretariat had been distributing these proposals to all the DC members at the same time as the distribution to the external peer reviewers, but this understanding had apparently not been well understood. **DP to contact IUPAC Secretariat and re-institute the automatic circulation of all new project proposals to the DC members upon initiation of the peer review process.**
- At least 3 new project proposals have been received by the IUPAC Secretariat and are just beginning the external peer review process. These latter proposals are also listed below, but were not discussed in detail and will be dealt with by the DC at a future meeting.
- DP suggested key questions to be considered for new project proposals. Is this a project proposal...
 - ...ready for a decision or is a substantial revision required before further consideration
 - ...that is focused on a critical environmental/food chemistry issue of international significance? (Relevance)
 - ...that other bodies are not addressing adequately and that IUPAC is uniquely qualified to handle? (IUPAC Capability, Redundancy)

- ...has a well-defined objective, action plan, and expected result? (Process, Work Product)
- ...will be effectively communicated to the customer base? (Technology Transfer)
- The DP also suggested that any potential conflicts of interest (i.e., proposal by or involves a member of the DCE DC) be flagged as each proposal was discussed.
 - **2003-012-1** (Ambrus) Field survey guidance (Traditional Project)
 - Previously discussed at Ottawa GA.
 - Project leader has not responded to a request for revision.
 - **Decision:** Reject the existing proposal, but invite future consideration of a new proposal.
 - **2003-016-1** (Herrchen) Medicinal exposure methods (Traditional Project)
 - Previously discussed at Ottawa GA, with suggestions for revision communicated to the project leader.
 - In light of pending regulatory activities, project leader wishes to defer further consideration.
 - **Decision:** Keep existing proposal on-hold; anticipate a revised proposal in the future.
 - **2003-017-2** (Garelick) Arsenic water remediation (Traditional Project / Workshop?)
 - Previously discussed at Ottawa GA, with suggestions for revision communicated to the project leader. Had been favorably viewed by external peer reviewers.
 - Yehuda Shevah (DCE AM) a project team member.
 - Revised proposal received.
 - Candidate for Project Committee funding with respect to a concluding workshop.
 - WHO water program (Jamie Bartram, WHO, Geneva) is just completing an exhaustive review of basic arsenic chemistry, epidemiology, geology, etc... A book of contributed chapters is nearing finalization, but WHO would like to have a face-to-face meeting if possible and also lacks an overall technical editor for the volume. WHO is very interested in collaboration with both the existing IUPAC project activity (2003-050-1 see below) and the proposed remediation-focused one of Garelick. The IUPAC Bangladesh workshop could provide an opportunity for meeting of the WHO project team.
 - Concentrate this project on remediation aspects rather than on redundant review of basic chemistry aspects.
 - Extensive EPA and draft WHO documents are available which obviate the need for this project to review background information on arsenic in any detail.
 - Need to expand project team to other regions by coopting, collaborating, etc,...
 - Project leader should contact Stanley Langer at Royal Society of Chemistry, London and Feroze Ahmed, University of Dakka, Bangladesh as possible collaborators.
 - Unclear what funding will come from other sources (i.e., \$70,000 or \$7,000)

- John Malin has recently visited University of Dakka under the IUPAC project **2003-050-1** (Ahuja and Malin). Sonofilter company has a filter (iron filings and sand bucket) claimed to reduce arsenic from 1000 ppb to ND or <50 ppb. Bangladesh government has approved 4 technologies to be investigated further. There is a real local need for independent evaluation to confirm or rebut claims. John Malin is preparing a report to determine usefulness of a workshop; will report to Chemrawn 15 (Chemistry for Water) in Paris during 21-23 June 2004. This may lead to a proposal for a conference in 2005 for which the Garelick project could be fit.
- **Decision:** Project conditionally approved with funding at an initial level of \$3000 contingent upon revision of the action plan (e.g., project team composition, remediation scope/focus – see comments below).
 - DP to work with Project Leader to secure additional Project Committee funding to support the extended collaboration and workshop approach.
 - Focus on remediation and quick test for arsenic. Do not duplicate reviews of general chemistry. Acknowledge effects on plants from irrigation water (IRRI) as well as on human health.
 - Augment the project team (e.g., Feroze Ahmed, John Malin, WHO project leader Jamie Bertram).
 - Go forward quickly on the remediation aspect so that a critical evaluation can be complete by the time of the IUPAC workshop in 2005.
 - Seek to cooperate in workshop/conference organization with John Malin in the lead and build-in WHO involvement as well.
- **2003-058-1** (Hertel) Air pollution model (Book Project)
 - A new proposal received since the Ottawa GA.
 - An important project. One positive external peer review.
 - Ole Hertel (DCE AM) project team leader.
 - A book contract already exists with Kluwer Press. Royalties from Kluwer (contracted publisher) need to be signed over to IUPAC.
 - List of chapters and main authors now available; all authors seem to be EU.
 - Hertel confirmed that project would go forward with or without IUPAC and he would be editor of the book.
 - Funds mostly for graphical work, and Ole Hertel indicated that \$5000 could be an acceptable IUPAC contribution.
 - IUPAC funds to be seed money to attract others.
 - No peer reviewers were initially being considered for the chapters; only the Danish editors were planning to review and edit for grammatical content.
 - DCE would need to consider how to build in peer reviews of chapters by external experts and also DCE.
 - Project leader/editor needs to get authors agreement for external peer review.

- As an example of how books are being handled by the Division, Nicola Senesi indicated that he arranges for peer review by 1-2 external experts, DCE, and other chapter authors.
 - **Decision:** Project approved with funding at a level of \$5000 with the request that peer review of contributed chapters is arranged and royalty situation is worked out between the editors and the IUPAC Secretariat.
- **2004-001-1** (Slanina) Atmospheric particle sampling (Traditional Project / Workshop?)
- Draft proposal informally circulated at the Ottawa GA; formal submission of proposal received since the Ottawa GA.
 - Tania Tavares (DCE NR) project team member.
 - One external peer review received. Reviewer comments are quite important and indicate a revised proposal would be appropriate.
 - A very analytical group; doesn't seem to include particle sampling expertise.
 - Ole Hertel agreed that he could offer additional perspectives to the project team.
 - The proposal was unclear as to the intent of the workshop. Is this really a workshop for external participants or only a project team member meeting?
 - Funding level appears too high; could consider funding at a reduced level of \$6000.
 - **Decision:** Conditionally approve, but request a revised proposal based on comments of external peer reviewer and DCE DC, including a decreased level of requested funding (to \$6000). Funding assignment dependent upon receipt of an acceptable revised proposal.
- **2004-002-1** (Stephenson) Pesticide glossary (Traditional Project)
- A new proposal received since the Ottawa GA.
 - Three external peer reviews received, all positive.
 - Patrick Holland (DCE TM) project team member.
 - Very good fit with traditional IUPAC project approach.
 - Project leader should look for any utility of the recently published agrochemical encyclopedia (Plimmer et al.).
 - Ken Racke learned of recent interest at WHO-IPCS and with OECD for cooperation on the glossary revision project. Such cooperation should be required for the project to have maximum utility and acceptance.
 - During the peer review process, CropLife International (CLI) agreed to cost-share part of the project.
 - Each definition should have an authority or source(s) listed where appropriate.
 - Collaboration will be needed with the IUPAC nomenclature commission.
 - **Decision:** Project approved with funding at a reduced level of \$4,000.
DP to work with Project Leader and CLI to secure additional cost-sharing.
- **2004-003-2** (Violante) Biophys-chem soil metals (Book Project)

- A new proposal received since the Ottawa GA.
 - Two external peer reviews received; both positive.
 - Nicola Senesi (DCE TM) and Pan-Ming Huang (DCE AM) project team members.
 - This is part of a series of new books being considered by the SC on Biophysico-Chemical Processes in the Environment.
 - There appears to be some potential overlap of this proposal with on ongoing SETAC book project.
 - Coleans and Herb Allen are the editors of a SETAC book to come out in the near future. Willie Peijnenberg is a chapter author and believes there may be up to 50% overlap at least from the chapter title level of detail.
 - The DC agreed that resolution of the potential overlap of the proposed Wiley book with the existing SETAC book project was critical.
 - Willie Peijnenberg agreed to share copies of Wiley reviews and SETAC chapter outlines where available to assist this evaluation.
 - In last issue of PAC, the same topic was addressed by a project sponsored by the Analytical Chemistry Division. Need to clarify the linkage between the current proposal and this past IUPAC effort. This proposal must take into account what IUPAC has already published.
 - The project proposal by Petr Fedotov would appear to be a fit as a contributed chapter to the new book, and the project leader will be requested to incorporate this contribution (and already had provided some positive feedback).
 - Wiley Books has obtained 3 reviewers for the proposal, but may be waiting for a final decision on resolution of IUPAC sponsorship.
 - Regarding the potential for using Wiley book series royalty funds to support this project, because this volume is a different series Nicola Senesi feels that current Wiley book series royalty funds should not be used.
 - The project may be able to be completed with budget reduced by \$3500 to account for Wiley cost-sharing. Wiley has offered to provide advance royalties of \$2000 and an editorial fee of \$1000-1500. This would result in a project funding of \$6500.
 - **Decision: Conditionally approve, but request a revised proposal** to address/remediate potential overlap with existing SETAC project, invite Fedotov to contribute a chapter and revise the requested budget (to \$6500). **Willie Peijnenberg and Pan-Ming Huang to provide assistance.** Funding assignment dependent upon receipt of an acceptable revised proposal.
- **2004-007-1** (Fedotov) Trace element soil fractionation (Traditional Project)
- A new proposal received since the Ottawa GA.
 - Three external peer reviews received; all positive.
 - Petr Fedotov (DCE NR) project team leader.
 - Unfortunately reached DCE alongside other substantial proposals on related topics.
 - Could be a duplication of Peijnenburg's SETAC book chapter.

- Appears to be highly focused on a particular method developed at the institute of the proposed project leader.
 - Rather than a stand-alone project, appears to be a better fit as a contribution to the proposed Violante project on biophys-chem of soil metals (see above).
 - **Decision:** Reject the proposal as a stand-alone project, but request that the project leader consider joining efforts with the Violante project proposal (2004-003-2) as a project team member.
- **2004-011-1** (Parker) Simplified environ. exposure/risk (Traditional Project)
 - A new proposal received since the Ottawa GA.
 - Three external peer reviews received; all positive.
 - Ken Racke (DCE TM) and Don Wauchope (DCE TM) project team members.
 - Publication to be considered for PAC.
 - Would appear to be possible for cost-sharing with other organizations. Consider funding at one-half that requested, with burden on project leader for remaining funds.
 - Could also be candidate for Project Committee funding in part.
 - **Decision:** Project approved with funding at a reduced level of \$5,000.
 - **2004-015-1** (Wilkinson) Environmental colloids (Book Project) Wiley
 - A new proposal received since the Ottawa GA.
 - One external peer review received; positive.
 - Potential duplication with ongoing Lewis book (5 authors), but comments received from the Lewis book editor indicated significant overlap is unlikely.
 - Overall budget seems too large for a contributed chapter book project. Suggest reducing new DCE support to \$6,000 and to draw also \$5,000 from the Wiley book royalties fund since this new volume will be part of the same series.
 - **Decision:** Project approved with funding at a reduced level of \$6,000 plus \$5,000 from the Wiley book royalties fund.
 - **2004-018-1** (Sadicon) Multi-residue method validation (Method Validation)
 - A new proposal received since the Ottawa GA.
 - No discussion; external peer reviews awaited.
 - **2004-020-1** (This) Molecular gastronomy (Traditional Project)
 - A new proposal received since the Ottawa GA.
 - No discussion; external peer reviews awaited.
 - **2004-022-1** (Fitzgerald) Starch component measure/term (Traditional Project)
 - A new proposal received since the Ottawa GA.
 - Melissa Fitzgerald (DCE NR) Project Team Leader.
 - No discussion; external peer reviews awaited.
- IUPAC/IOCD cooperation (Cooperative Project / Workshop)
 - 10 years ago IUPAC/IOCD signed a cooperative agreement.

- Lapsed into inactivity; renewed commitment at the Ottawa GA.
 - Invited Walter Benson to join DCE DC as an AM (7th)
- **2004-017-1** (Benson) Standardization of Analytical Approaches and Analytical Capacity-Building in Africa (Cooperative Project)
 - Walter Benson (DCE AM) Project Team Leader.
 - Uganda and Kenya are initial focus. Nigeria, South Africa, and Mozambique are of interest to the World Bank's ongoing project.
 - Wish to make local workshops more effective; cooperate with the countries directly at laboratory and administration levels.
 - Want IUPAC affiliates to be free to utilize project funds to come to Africa for training and capacity-building activities.
 - AOAC has already agreed to participate via a listing of experts.
 - Need to involve Judy Stober of IFCS; quite interested.
 - Need to consider adding European-based project team members (e.g., Stephen Keces of UNEP, Arpad Ambrus of IAEA).
 - Should also consider additional DCE members (Richard Cantrill, Fats and Oils workshop; Don Wauchope).
 - Analytical Chemistry Division (ACD) is also considering supporting the project.
 - Since IUPAC leadership made the overall commitment to cooperate with IOCD, it would be appropriate for funding to be sourced via the Project Committee.
 - **Decision:** Project approved contingent upon confirming cost-sharing with ACD and Project Committee. DP to work with ACD in making approach to Project Committee.

6. AOAC International

- Opportunities for collaboration between IUPAC and AOAC were briefly discussed.
- It was agreed that contribution of a short article on IUPAC/DCE activities to the AOAC news magazine *Inside Lab Management* would be an appropriate first step.
- Should consider including also ACD interests and activities.
- DP and DS to coordinate contribution of the article.

7. Communications

- The Division web page on the IUPAC site is in need of modifications and refinements. Major content at present includes a listing of members, a listing of projects, and copies of past DC meeting minutes.
- Based on responses to the past Division newsletter, plans for future editions will be arranged by the DS.
- IUPAC is encouraging the Divisions to place summary articles on Division activities in *Chemistry International*. This may be an opportunity for the DCE to consider.
- Laura McConnell indicated that closing date was approaching soon for articles for inclusion in the fall edition of the *Picogram*, the news magazine of the ACS Agrochemicals Division. DP to provide an article on DCE activities and also the upcoming pesticide workshop in Costa Rica.
- Ken Racke reported that the INFOCAP program at WHO IPCS is very interested in publicizing the results of IUPAC projects. DP to contact Fabienne Meyers to arrange an information sharing connection.

8. Conferences

A key point arising was the need for DCE to maintain control or influence of key conferences and workshops that advance our objectives and give visibility to IUPAC. These include the international symposia on crop protection chemistry and on mycotoxins/phyco toxins that have been run for over 2 decades, and the workshops on pesticides and on oils/fats.

- International Congress of Pesticide Chemistry
 - 11th Congress planned for Kobe, Japan during 6-11 August 2006
 - Web site at www.iupac2006.jtbcom.co.jp
 - Potential venues for the 12th Congress during 2010 include Washington, DC (in cooperation with the ACS Agrochemicals Division) and Melbourne, Australia (in cooperation with CSIRO).
 - Crop Protection Chemistry SC has stayed very active in Congress organization.
- International Symposium on Mycotoxins and Phycotoxins
 - 11th Symposium planned for Bethesda, USA during 17-21 May 2004.
 - Web site at www.aoac.org/meetings1/IUPAC/Main.htm
 - Elke Anklam involved in planning, but is not able to attend.
 - No plans yet for the 12th Symposium.
 - Pat Holland and Al Pohland to highlight IUPAC's continuing interest 11th Symposium and seek ideas and proposals for the 12th Symposium (accomplished with Turkey taking up the challenge to organize a Symposium in Istanbul in 2007 – IUPAC sponsorship application).
- Pesticide Chemistry Workshops
 - Next workshop scheduled for San Jose, Costa Rica during 14-17 February 2005.
 - Web site at www.iupac.org/symposia/2005/crop-protection-chemistry/index.html
 - Sites in Africa under consideration for a future workshop; potential link with capacity-building project with IOCD.
 - WHO and FAO are interested in additional training for the JMPR and JECFA, and industry is willing to help fund. However, WHO and FAO cannot take industry funds; would like to cooperate with IUPAC.
- Fats and Oils Workshops
 - Next workshop planned for Tunis, Tunisia during 6-8 December 2004.
 - Web site at www.aocs.org/meetings/analysis
 - Richard Cantrill and Patrick Dyssele are playing lead roles in organizing.
 - The DC requested that the Food Chemistry SC (Dyssele, Cantrill, et al.) consider where/when the next fats and oils workshop will occur.
- Atmospheric Chemistry Workshops
 - First one held in Tel Aviv during 2000.
 - Can a second one be considered for Brazil as part of the project proposed by Slanina?
 - Willie Peijnenberg, Sjak Slanina, and Ole' Hertel to consider developing a proposal.

9. Membership

- All existing AM and NR terms and most TM terms expire at end of 2005. Election for new members for the 2006-2007 biennium *must be completed by time of Beijing GA in August 2005*.
- Selection of Division officers for the new biennium will be by the existing DC membership in Beijing. Very important that selection of candidates include one or more with Vice President interest for the 2006-2007 biennium who would be willing to assume the Division Presidency for the following (2008-2009) biennium.
- A Nominating Committee (NC) must be formed to run the election process on behalf of the Division. To include a Chair and 4 members (two from inside).
- Werner Klein agreed to serve as the NC Chair. Several Division Committee members expressed interest in serving also on the NC. **NC to provide a slate of candidates and coordinate completion of the election process with the IUPAC Secretariat no later than 13 August 2005.**

10. Future IUPAC Meetings

- Next face-to-face Division meeting at Beijing, China General Assembly (GA), August 2005
 - August 13 and 14 for Division Committee
 - A half-day environmental chemistry symposium was proposed by the Division for the Beijing International Chemistry Congress, but firm feedback from the organizers has not yet been received. Will be important also to recruit some Chinese participants. **DP to contact John Jost, who should have further details following his recent trip to Beijing.**
 - Might consider also ISSOM participation with the
- IUPAC Bureau meeting
 - To be held in Bled, Slovenia during 2-3 October 2004.
 - Ken Racke to attend as a member and represent DCE interests.
 - Will also need to present a report to the Bureau on DCE activities, including cooperation with other organizations.
 - DC was uncertain whether IUPAC Secretariat has confirmed in writing the official IUPAC representative status of the individuals listed in the Blue Book. Written confirmation by IUPAC should be made both to the other organization and the recognized representative.
- Future phone conference to be planned for project discussions.
 - Consider planning for mid-to-late October-2004 following the IUPAC Bureau meeting.
 - May also need one during April or early May-2005 prior to the Beijing GA.
 - **DP and DS to coordinate planning for future phone conference(s).**

Number	Sub-com.	Title	Leader	Cooperation	Date Proposal Subm.	Budget Request USD	Funding DCE	Funding PC or Other	Funding Total	Unspent 5-Apr-04	Status	Comments/Actions
2000-2001 Financial Year												
630/24/95	Env.Comp	Solute movement in soils with potential for rapid by-pass movement	Koerdel					Unknown	\$0	\$0	Final report for publ in PAC submitted to DP Apr-04 for approval.	Completed. Final report awaiting DP peer review and approval. Extension activities: summary to Chem.Int. (Don Wauchope); presentation at Kobe Conference 2006.
1999-009-1	Crop Prot.	Pesticide residues in food - acute dietary exposure	Hamilton	CODEX, JMPR			\$3,000		\$3,000	\$315	Published in Pest Management Sci. 60: 311-339 (2004). Summary in Chem.Int. 26: 18-20 (2004).	Completed. Final report published.
1999-010-1	Food	Mycotoxin methods for developing countries	Anklam	Coord by EC Ref. Lab.			\$8,000		\$8,000	-\$163	Final internal report prepared. Returned data of variable usefulness and quality.	Completed. Elke Anklam has prepared an article for Chem.Int. with recommendations for future collab studies involving developing countries. DP to circulate summary to Food Chem s/c.
1999-013-2	Env.Comp	In-situ Treatment of Polluted Soils	Mandelbaum	SC-3			\$5,000		\$5,000	\$5,000	DCE asked in Ottawa for Y. Shevah to appoint new project leader.	No progress. Project terminated
1999-014-2	Env.Comp	Airborne & Remote Sensing of Water Quality	Dekker	FAO/IAEA			\$5,000		\$5,000	-\$124	New action plan circulated Oct-2003. Funds drawn Dec-2003. Draft report promised by Dec-2004.	DS to follow-up with Dekker on progress with report.
1999-017-1	Crop Prot.	Regulatory limits for pesticide residues in water	Hamilton				\$4,000		\$4,000	-\$801	Published in PAC 75:1123-1155 (2003). Presented at Int.Life.Sci. conference 2003.	Completed. Final report published. Synopsis to be prepared for Pest Mgt Sci. (Don Wauchope, DP)
1999-030-2	Env.Comp	Workshop on Local air Pollution in Developing Countries. China, Dec.01	Zhang	IOCD, WHO			\$5,500		\$5,500	\$1,452	Successful workshop held. Report prepared for PAC.	Completed. Final report in-press with PAC.
1999-034-1	Env.Comp	Local Radiation Balance: Influence of Aerosols	Slanina	EU, ECN			\$5,000		\$5,000	\$544	Complete. Report prepared for PAC.	Completed. Final report in-press with PAC.
1999-041-1	Crop Prot.	Bioavailability of xenobiotics in soil	Katayama	SC-2			\$5,500		\$5,500	\$1,488	Report and recommendations approved by SC. English grammatical editing by 4 reviewers. Waiting for comments of Soil and Water group to be incorporated.	ISO Group (Werner Koerdel) is also active, and can arrange for Arata Katakama to attend next meeting in Paris (September). Don Wauchope to provide most recent version.
1999-042-1	Food	Int'l. Workshop on Fats, Oils & Oilseeds. Brazil, Nov.2000	Lago				\$6,000		\$6,000	\$3,063	Remaining funds to be used to support travel of scientists from developing countries to Tunisia workshop (proj. #2002-011-2)	DS/DP to check with Secretariat re avail of budget surplus (\$3063 not in Proj.Exp. Summary of 5/3/04)
2000-016-1	Div	Int. Symposium on Endocrine Active Substances. Nov. 02	Miyamoto	SCOPE ICCA WHO NIEHS			\$10,000	\$15,000	\$25,000	\$0	Successful conference Nov-2002. Proceedings published in PAC, Dec-03 and a synopsis was widely distributed internationally..	One of the workshop summaries was forgotten in the workshop publication (3 pages, Japanese colleague). Errata needed for PAC. Werner Klein to arrange.

Number	Sub-com.	Title	Leader	Cooperation	Date Proposal Subm.	Budget Request USD	Funding DCE	Funding PC or Other	Funding Total	Unspent 5-Apr-04	Status	Comments/Actions
2002-2003 Financial Year												
2001-022-1	Crop Prot.	Global availability of information on agrochemicals	Unsworth		3-Jul-01	\$12,000	\$6,000		\$6,000	\$4,950	New project leader has taken charge and Jan-04 plan of action circulated.	On track
2001-023-1	Crop Prot.	Agrochemical spray drift	Felsot		3-Jul-01	\$8,000	\$6,000		\$6,000	\$2,422	Underway. First draft report discussed Oct-2003. Final report by Feb-2005.	On track
2001-024-2	Crop Prot.	Impact of transgenic crops on use of agrochem. and the environment	Kleter		3-Jul-01	\$15,000	\$10,000	\$10,000	\$20,000	\$10,034	Underway. Draft report discussed and presented at Koren workhop, Oct-2003. Finalize by Feb-2005.	On track. Desirable to have short article through Chem.Int.
2001-026-1	Env.Comp.	Use of reference soils for testing fates & effects of chemicals	Koerdel		18-Jul-01	\$10,000	\$6,000		\$6,000	\$6,000	Now collecting extended outlines. First draft beginning of next year and a working group meeting. End of 2005 a final report.	Group is still very much focused in Europe. DP to contact Al Barefoot and Jim Knuteson. Ming to contact Prof. Helmke, Univ. Wisconsin (Handbook of Soil Sci.); Melissa Fitzgerald to find Australia contact; Kim/Tanaka to find Asian contact.
2001-039-1	Crop Prot.	Pest management for small-acreage crops - a cooperative approach	Wauchope		12-Sep-01	\$18,000	\$10,000		\$10,000	\$143	First draft report discussed Oct-2003. Finalize by Feb-2005.	Moderate progress. Re-focused on MRLs and methods for setting interim MRLs for minor consumption crops.
2002-046-1	Crop Prot.	Pesticides: harmonisation of data requirements and evaluation	Kim	Korean Soc Pesticide Science	31-Jul-02	\$6,000	\$7,000		\$7,000	\$0	Successful workshop held in Seoul Oct-2003. Workshop report in Chem.Int. Apr-04.	Completed. Final report published. Workshop report will also be publ by CropLife Asia Assoc.
2002-062-1	Fund.EPC	Royalties from Wiley book series	Senesi							\$11,415	Royalty fund for capturing Wiley Book Series payments.	Funding assigned to support new Wiley books in the series, including 2003-014-2 (\$6,400) and 2004-015-1 (\$5,000)
2002-013-2	Food	Method for trace elements in oil-fat by ICP	Cantrill	ISO, AOCS	8-Mar-02	\$5,000	\$5,000		\$5,000	\$5,000	DCE approved in Ottawa. Funded from 2002-2003 reserves. Collaborative study design (AOAC/IUPAC guidelines) with 25 labs. Complete this mid 2004, report Dec.04.	AOCS has samples (10 elements) prepared ready for distn to 25 labs
2003-011-3	Crop Prot.	A critical compendium of pesticide physical chemical data	Wauchope, Shaw (Ldr)	Analytical Chem Div	13-Mar-03	\$15,000	\$4,000	\$11,000	\$15,000	\$15,000	DCE approved in Ottawa. Funded from 2002-2003 DCE reserves. Div.V & PC. David Shaw is leading action plan development.	Internet discussion held with 22 cooperators. Project focused on water solubility, vapor pressure and octanol-water coefficient.
2003-013-1	Crop Prot.	Crop protection chemistry in Latin America. Workshop Costa Rica Feb.2005	Carazo	CropLife Latin Am.	13-Mar-03	\$9,000	\$9,000		\$9,000	\$9,000	DCE approved in Ottawa. Funded from DCE 2002-2003 reserves.	First circular has been printed and released. Co-sponsors identified. Laura McConnell to liaise with colleague at Univ. MD.

Number	Sub-com.	Title	Leader	Cooperation	Date Proposal Subm.	Budget Request USD	Funding DCE	Funding PC or Other	Funding Total	Unspent 5-Apr-04	Status	Comments/Actions
2004-2005 Financial Year												
2002-011-2	Food	International workshop on Fats, Oils and Oilseeds analysis and production (Tunis, Tunisia, 1-6 Dec-2004).	Dysseler		26-Feb-02	\$6,000	\$4,000	\$0	\$4,000	\$4,000	Project approved by DCE Ottawa. Tunis, Tunisia 6-8 Dec-04. First circular released (AOCS website)	Budget mainly coming from registrations (American Soybean Assoc, Brussels/Istanbul branch). Lago (Brasil) invited. DS to contact Lago and Secretariat re money (see 1999-042).
2003-012-1	Crop Prot.	Guidance for designing field surveys and monitoring programmes to ensure compliance with legal limits	Ambrus	IAEA	13-Mar-03	\$5,000	\$0	\$0	\$0	\$0	Not approved by DCE Ottawa. Crop Prot. SC sent comments for revision Oct.03	No revision received. Project rejected.
2003-014-2	Fund.EPC	Biophysico-Chemistry of Fractal structures and processes in environmental systems	Senesi		14-Mar-03	\$15,000	\$8,500	\$6,400	\$14,900	\$14,900	Accepted 22 March 2004. Additional \$6400 agreed to come from Wiley Royalty Fund. No.10 in series, 10-12 chapters with a balance of theoretical & practical; first draft Aug-04; publish Dec-05.	Two-day meeting/workshop planned for early 2005; could be synergy in a joint workshop for Colloid book project (but only 1 colloid chapter in the fractal book). Need to consider a missing link between environmental people and fractal people Werner Klein/Nicola Senesi to address.
2003-016-1	Env.Comp	Integrating environmental exposure pathways for medicinal products	Herrchen	EC, US-EPA, GDCh	28-Mar-03	\$5,700	\$0	\$0	\$0	\$0	PL requested Dec.03 withdrawal of proposal pending new EU initiatives; DCE keeping on-hold and revise when EU situation is clearer	On-hold.
2003-017-2	Env.Comp	Remediation technologies for removal of arsenic from water and wastewater	Garelick		18-Apr-03	\$8,000	\$3,000	\$5,000	\$8,000	\$8,000	Revised proposal rec. Jan.04. Milestones rec. Apr.04 that considers ACS/Dr Ahuja project on arsenic in Bangladesh (#2003-050-1). Conditionally approved with initial funding level of \$3,000.	Important project but objectives need to be focused on remediation and closely linked to preliminary findings of Ahuja/Malin project (John Malin ACS to provide report). Project Committee to be asked for \$5000 in cost-sharing (DP to prepare case).
2003-030-1	Env.Comp	Glossary of atmospheric chemistry	Cvitas		19-Aug-03	\$5,000	\$5,000	\$0	\$5,000	\$5,000	Proposal accepted - no need for ext. review	The AgChem & Atmos. Glossary projects should coordinate re style/format and follow ICTNS rules. Leo Klasinc to forward info from Cvitas to G. Stephenson and D. Hamilton.
2003-058-1	Env.Comp	Air pollution models in environmental management and assessment	Hertel		10-Dec-03	\$10,000	\$5,000	\$0	\$5,000	\$5,000	Contract signed with publisher (Kluwer). Proposal accepted.	Ole Hertel agrees to assign royalties to IUPAC. He will find support from his department for the expensive graphical work.
2004-001-1	Env.Comp	Artifacts in particle sampling of semi-volatile compounds and consequences for climatic changes modeling	Slanina		7-Jan-04	\$15,000	\$0	\$0	\$0	\$0	Conditionally accepted pending receipt of revised proposal to consider external peer review and with a decreased funding request (\$6000). Funding assignment dependent upon receipt of an acceptable revised proposal.	
2004-002-1	Crop Prot.	Glossary of terms related to pesticides	Stephenson	WHO-IPCS	14-Jan-04	\$6,000	\$4,000	\$2,000	\$6,000	\$6,000	Proposal accepted.	CropLife America willing to fund \$2000.
2004-003-2	Fund.EPC	Biophysico-chemical process of heavy metals and metalloids in soil environments	Violante		15-Jan-04	\$12,500	\$0	\$0	\$0	\$0	Conditionally accepted, but request a revised proposal to address/remediate potential overlap with existing SETAC project and revise the requested budget (to \$6500).	Recommend Fedetov be invited to contribute a chapter (see #2004-007). Wiley by will provide a \$2000 advance and \$1000-1500 for admin. Willie Peijnenberg and Pan-Ming Huang to provide assistance in proposal revision. Book will be publ Wiley as first in a new series.
2004-007-1	Env.Comp	Fractionation and mobility of trace elements in environmental solids	Fedotov		1-Jan-04	\$10,000	\$0	\$0	\$0	\$0	Ext. reviews received. Revised draft rec 30/3/04. Not approved as a separate project.	Recommend incorporating into #2004-003 as a chapter on this topic. DP/Nicola Senesi to arrange invitation.

Number	Sub-com.	Title	Leader	Cooperation	Date Proposal Subm.	Budget Request USD	Funding DCE	Funding PC or Other	Funding Total	Unspent 5-Apr-04	Status	Comments/Actions
2004-2005 Financial Year (continued)												
2004-011-1	Crop Prot.	Simplified methods and tools for env. risk assessment of pesticides	Parker	FAO	2-Mar-04	\$10,000	\$5,000	\$0	\$5,000	\$5,000	Proposal accepted.	
2004-015-1	Fund. EPC	Environmental colloids: behaviour, structure & characterisation	Wilkinson		17-Mar-04	\$16,500	\$6,000	\$5,000	\$11,000	\$11,000	Proposal accepted. Additional \$5000 agreed to come from Wiley Royalty Fund.	Wiley book series No.11.
2004-017-1	IOCD	Standardisation of analytical approaches and capacity building in Africa	Benson	IOCD, div.5	19-Mar-04	\$10,000	\$0	\$10,000	\$10,000	\$10,000	Proposal accepted contingent upon obtaining cost-sharing with ACD and the Project Committee.	DP/DS will work with Walter Benson and Kip Powell (ACD) to develop rationale and justification for Project Committee funding.
2004-018-1	Crop Prot.	Multi-residue method - in-house validation	Sadicon	Div.5	26-Mar-04	\$5,800	\$0	\$0	\$0	\$0	Awaiting external reviews	Proposal (within-lab validation of a specific method) is probably too narrow for DCE.
2004-020-1	Food	Molecular gastronomy	This	Div. 7 Lead	16-Apr-04	\$9,600	\$0	\$0	\$0	\$0	Awaiting external reviews	Not discussed at DCE meeting
2004-022-1	Food	Terminology and measurement techniques of starch components	Fitzgerald	Div.4	6-May-04	\$10,000	\$0	\$0	\$0	\$0	Awaiting external reviews	Not discussed at DCE meeting