

Management Summary of the 13th Meeting of the PRISM Forum

**hosted by Novartis in Cambridge, MA
Wednesday 6th and Thursday 7th October 2004**

**Meeting Themes:
Special Interest Group on Text Mining
Knowledge Representation
Emerging Technologies
PharmaGRID**

1. The 13th PRISM Forum Meeting

The Chairman and host, Rene Ziegler, welcomed the members to the 13th meeting of the PRISM Forum at the Novartis Institute for Biomedical Research in the heart of MIT at Cambridge, MA.

A Special Interest Group (SIG) on the subject of Text Mining was organised and chaired by Rowan Gardner and facilitated by William Hayes from AstraZeneca. Bruce Gomes (AZ) gave a keynote presentation. The outcomes of this workshop were presented to a joint session of the two groups by Therese Vachon (Novartis).

A special presentation and discussion on the closely related subject of Knowledge Representation was organised for the same joint session. This was led by Steve Gardner (Biowisdom) and Sheryl Torr-Brown (Pfizer).

The attendees of both PRISM and the Text Mining SIG are listed in appendices 2 and 3.

2. Joint Session Report from the Text Mining SIG

Therese Vachon presented the outcome of the Text Mining special interest group to the combined groups. This presentation will be made available on the PRISM web site¹. Therese and her team had built up a very impressive set of text mining tools within Novartis, notably the Ultralink technology which she illustrated.

Therese and William Hayes both emphasized that text mining should be considered as an enabling tool, to be used with other tools for knowledge management, rather than a stand-alone tool. Some of the products available today required too high an understanding by the end user. Their use by the majority of scientists without training, for which the scientist was not going to find the time, was generally unsuccessful. Therefore the design of the user interface and the manner in which such text mining tools were integrated into the process was vital to the capability to offer such facilities to a wider group of users. It seemed sensible to imbed text mining tools as components within applications rather than

¹ <http://www.prismforum.org>

to offer text mining as a stand-alone facility, and to recognize that no one product (or tool) solved all problems.

Currently large pharma companies were spending of the order of \$10 to \$30 Million per year in order to access published content, and therefore it seemed worthwhile to spend some money in order to analyze this information. On the other hand, in order to launch text mining as a new activity, executive sponsorship was essential, as was the need to identify some “quick hit” areas with a high likelihood of success as pilot projects. It was proposed that such pilots would take of the order of 3 to 6 months. If successful, over 2 to 5 years, one could end up with a 10 to 20 FTE activity with a total budget of \$10 Million. Of this there would be perhaps 2 FTEs dedicated to text mining and the rest would work in integration and knowledge management.

The conclusions of the group were:

- that text mining is an important and even essential component of an integrated Knowledge Discovery environment,
- that there is an industry wide issue concerning the full access to all the content since it is owned by the publishers and the current licensing arrangements tend not to be tailored to full mining of content,
- that it is recommended the text mining expert and the end user should work in partnership during text mining,
- and that the business case and a champion are critical to success.

Indeed the challenge to introduce text mining as a new informatics activity within a company seemed not really different from the introduction of any new informatics project.

The issue of full access to content was debated as an activity that PRISM could approach in a pre-competitive manner. William noted the possibility of a trusted third party broker solution. Others pointed out strong current academic initiatives for open free access publishing. A particular current initiative coming from NIH is a request for comments on its proposed Enhanced Public Access Policy, see:

http://grants.nih.gov/grants/guide/public_access/add.htm

This above had a deadline of 16th November. William agreed to make a first draft of a possible response from PRISM within ten days, to be distributed to PRISM and SIG attendees for fast feedback.

Action: William Hayes, Rowan

Members also felt that PRISM should produce a White Paper on this topic of Text Mining. Therese agreed to take the lead on this activity. The possibility of engaging a technical writer to assist in this was mentioned and this was later agreed in the business session.

Action: Therese Vachon

3. Knowledge Representation

In preparation for this meeting it had seemed a particularly appropriate opportunity to follow the SIG in Text Mining with a special session on Knowledge Representation which was led by Steve Gardner of Biowisdom and Sheryl Torr-Brown of Pfizer who have been working together in this area.

This indeed turned out to be an excellent proposal and the session was greatly appreciated by the participants for its instructive value. Steve and Sheryl were both thanked for their

particular efforts and for taking the time to present their understanding to PRISM. This presentation will be made available to attendees.

Action: Rowan

4. Company Presentations

Company presentations of news and changes in their organisations were made by BMS, Wyeth, Sentrx, Ipsen, Novartis and Schering-Plough. Thierry Barsalou had been recently made CIO of Ipsen and hence now had a much wider organisation. David Pioli reported on the newly created Sanofi-Aventis organisation. Tom Flores, attending this meeting for the first time in his GlaxoSmithKline role, (having in the past attended PRISM with another hat), described the organisation of his group with research at GSK. Sheryl Torr-Brown gave a welcome presentation about Pfizer who have rarely attended PRISM in the past. Howard Bilofsky gave an update of his activities and some of the new academic initiatives.

This opportunity to compare non-competitive information in context, in an interactive manner and in a trusted environment was considered to be particularly valuable. This session proved once again to be one of the core interests of the Forum.

5. Novartis Institute for Biomedical Research - NIBR

The planned presentation of NIBR and the visit to the facilities had to be cancelled at the last minute.

6. Emerging Technologies and Future Challenges

Ron Behling reported on a “brainstorming” study started by Stefan Blarer, Uwe Trinks and himself looking at emerging technologies and future challenges. His presentation will be made available on the website. He solicited feedback from members.

Action: Rowan

Using a somewhat personal rating system, and taking the PharmaGRID as the “gold standard”, they had selected from a list of opportunities the following subset:

- Seamless external collaborations
- Information search and retrieval
- Systems integration with regulatory agencies
- Lean process improvements
- Technologies and approaches that truly enable integration and collaboration

Chris felt that despite the early view that had prevailed particularly within the pharma industry that the GRID was just a way of harnessing unused processor cycles, a much wider view was that the GRID was exactly (one of the) enabling technologies to support two of the above topics, namely “seamless external collaboration” and “enabling integration and collaboration”. Worldwide collaboration and “virtual organisations” were fundamental to new methods of working that could be enabled by GRID technology. This was embedded in the widely used metaphor of “e-science” (e for enabled), for which the GRID technology was just an enabling component.

He cautioned that, if the idea was to run another event along the model of PharmaGRID, there were certain fundamental prerequisites. Support from sponsors was essential as were people prepared to spend not inconsiderable time to organise the event and to attract attendees. The latter point certainly had not happened “simply by emailing PRISM members” and PharmaGRID had involved considerable effort to alert potential attendees.

Summarizing the ideas expressed around the table, “Possible Goals” for running such events around the table were:

- Crystallise ideas to take back to the office and deliver results
- Direct intellectual enthusiasm to influence the technology
- Networking
- Translate technology into business potential – what can we achieve?
- Education
- Share best practices and successes
- Leverage our efforts – more participation, more impact

Suggestions around the table for events:

- What are we doing towards Pharma 2010?
- Megatrends – e.g. consumerism’s impact on IT – embrace the inevitable – “mobile A4/A5/A6...authorized, authenticated...mobile access”
- Disruptive technology – e.g. patient monitoring
- Workshop in how to solve our biggest current (persistent) problem
- Make ourselves more nimble, flexible, how to become change facilitators
- Increase individual professional competency and readiness for key IT capabilities

This discussion was adjourned until the business session.

7. ROI Approaches, R. Ziegler

Rene Ziegler had distributed a questionnaire prior to the meeting and collated members’ responses. (This presentation will be made available on the web site.)

Action: Rowan

In general the replies were very heterogeneous making it impossible to extract common themes but rather to list all replies. Nonetheless this resulted in some very interesting comparisons and discussions, notably of the strengths and weaknesses of applying ROI methodology. Both the managerial overheads imposed, and the tendency of the approach to bias against innovation, were obvious negative factors to be understood and dealt with as appropriately as possible.

Rene’s conclusions were that there were no proven standard approaches emerging and that various degrees of maturity were evident amongst the responding companies, GSK seemed to be applying value management most consistently. Nonetheless there was a feeling that “something” needed to be done in this area. Rene’s final personal observation was to ask “why we in IT think we need to prove our value all the time. Are we lacking in self confidence? Are we not close enough to the business yet to deserve the seat at the table?”

9. PharmaGRID, GRID Updates and related issues

Chris Jones presented a review of the PharmaGRID 2004 Workshop, held at Diessenhof in Switzerland, its origins, goals, objectives, budget, sponsors and ultimate outcomes. The event had been acknowledged by attendees as an excellent meeting, especially in the level of the discussion and debate, and the formula of a workshop/retreat had once again proved very successful for bringing people together. The speakers had been outstanding, and had also been pleased with the event. The sponsors had all been particularly satisfied with the investment, and expressed their pleasure to be able to participate as full members of the meeting. They felt that the opportunity to speak seriously to key players and clients was unrivalled at other events. They would support such an event in the future.

In the slides he presented he included a presentation overview of the speaker's material that Rowan had made. All these slides will be made available on the website.

Action: Rowan

The event also made a comfortably larger profit than the reasonable number made at last year's event. He reminded members that under the current arrangement the PRISM Forum money and the PharmaGRID money were in the same PRISM Forum account, even if they were accounted separately. The status of the PRISM Forum in the UK requires a total figure in the bank of less than 10 000 pounds sterling if tax were to be avoided. He Therefore he made a number of proposals as to how to allocate usefully some of the profit. These proposals were agreed, namely:

- Around 2400 pounds to be used to employ someone to improve the Website functionality and content (at 300 pounds a day)
- One thousand pounds subsidy to PRISM for dinners
- Three thousand pounds to pay a Technical Writer to produce a White Paper on Text Mining
- 500 pounds for a PharmaGRID planning meeting
- Total 6900 pounds

On the technical side, it would have been highly desirable to have more contribution from speakers in the Pharma industry. The contributions that were made were very useful, especially news of initiative to form a cross-pharma collaboration aimed at producing "guidance" or "best practice" for how to ensure quality of data and systems management to allow for using the GRID within validated applications" from Patrick Marichal of J&J. Nonetheless many attendees would have liked to hear more contributions from Pharma. In practice such work does not seem to exist. It seems that the word GRID has been uniquely re-defined by some parts of the pharma industry to mean cycle harvesting or scavenging, and in particular in silico screening, where some clear successes have been achieved. This is very far from the wider world view of GRIDS or e-science, elaborated elsewhere in these minutes, as an enabling tool for new collaborative ways of working amongst world-wide virtual organisations. It is this wider view that has contributed in no small part to the major success that the vision of GRID has attained with the funding agencies.

In summary, PharmaGRID 2004 was an excellent event. However the question of whether there should be a third event in 2005 was not straightforward as there were a number of issues:

- Support from the PRISM Forum to produce attendees was insufficient

- The Pharma industry seemed to be a late adopter of this technology with the exception of the cycle scavenging and ROA
- PRISM Forum's mandate does not allow for financial risk when running any such event

9. Business Session

Publications, documentation and Web Site

The material from the Pharmacovigilance SIG, namely the list of objectives and the PowerPoint presentation need to be put on the website. In addition the Wise/Trinks "white paper", which is to be published next month in a journal, should be available there as well providing. Uwe will clarify issues of copyright with the journal.

Action: John, Uwe, Rowan

Uwe Trinks never received a reply from Microsoft as to which system files potentially satisfied the need for MS Software self-documenting features to support computer systems validation. Uwe to follow up with MS

Action: Uwe

Collaboration tools – the Gorgio Bollis / Robert Herouet paper should be put on the web site members' pages.

Action: Giorgio, Rowan

In general Rowan and Chris will try to clean up what should be there on the site. A proposal to use around £2400 from the money raised by the PharmaGRID event in order to employ someone to work on the website functionality and content was agreed.

Action: Rowan, Chris

Chairmanship

The Chairman reminded members that he had requested nominations for Chairman in September. Based on a low level of response Rene and the fact that membership changes led to several members from large companies being new and not yet eligible, Rene proposed to elect Uwe Trinks as chairman for the next year and this was unanimously approved.

Next meetings

It is proposed for the next meeting in Europe that we investigate further the proposal from the UK National e-Science Centre in Edinburgh to host the PRISM Forum as a pharma industry group. The e-Science centre hosts many meetings so dates could be a problem but it is proposed to investigate the 2nd or 3rd week of April 2005 – (Mon 4th or 11th)

Action: Chris and Rowan

Note: The dates have since been fixed as Tuesday 25th to Thursday 27th April 2005 at the NESC, Edinburgh, Scotland starting at 14:00 on the Tuesday, see later.

For the following meeting in the USA it is proposed to approach J&J PRI for the 2nd or 3rd week in October (Mon 10th and Mon 17th).

Action: Uwe

Possible next events and SIGs

Rowan (and Chris) explained that for PharmaGRID it had been easier to get sponsorship than it was to get a buy-in from the PRISM Forum in terms of attendees. It was not possible for Biolauncher, as a small company, to organise conferences on a semi-commercial basis, as the efforts required to achieve a successful event were not consistent with the level of reward. Therefore the event should be put on a full commercial footing, possibly by employing a professional conference organiser that would assume responsibility for the financial risk, or one should seek to align the event closer with perceived needs of the pharma industry so that all PRISM forum members felt comfortable in promoting the event in their organisations to get stronger buy-in.

Rowan and Chris both feel that the real thrust of the topic that we have been addressing under the PharmaGRID label is rather “achieving effective distributed and collaborative computing in pharma”.

It is proposed that for the Edinburgh meeting in April 2005 that we organise a special educational event on **collaborative computing and e-science** starting after lunch on Tuesday and continuing Wednesday all day. The business session would be on Thursday with the possible addition of a session on Disruptive Technologies facilitated by Tom Flores. There should be a maximum of around 30 people at the educational meeting and members are encouraged to bring a guest from their organisation.

Actions: Rowan, Chris, Uwe, Tom, all

Membership

With a view to broadening the membership Uwe will circulate a letter with list of top 25 companies for suggestions from members as to people we should approach.

Action: Uwe, all members

Budget

Rowan presented the accounts of the PRISM Forum. In this first year of the new membership model the accounts balanced very closely. There was not enough income if we were trying to cover three dinners per meeting. Furthermore Rowan personally charged no fee to PRISM, and Chris, exceptionally, did not attend the Madrid meeting. Therefore, given so little room for error, it seems sensible to consider a meeting attendance fee in addition to the membership fee.

Certain members have some difficulty paying the present membership fee because of internal company rules limiting the amount that can be paid for membership of a professional society. This is can be accommodated on an individual basis.

The exact numbers need some consideration outside of the meeting but it was suggested that the membership fee should stay as it is in order to demonstrate commitment (give access to web site and all documents) and that the meeting fee should be related to the actual costs associated with running each specific meeting (including cost of dinners etc.) but of the order of 150 pounds. A proposal will be made before the next meeting.

Action: Chris, Rowan, Uwe

Chris Jones
Friday, 08 October 2004

Appendix 1 - Scope and Mission of The Pharmaceutical Information Systems Management Forum - known as 'The PRISM Forum'

Scope

- The scope of the PRISM Forum embraces all informatics² of value, or of potential value, to the Life Science community³.

Mission, Membership and Meetings

- The mission of the PRISM Forum is to:
 - share pre-competitive information and best practices concerning informatics supporting the Life Science community, with a focus on R&D but taking a wider view when necessary or desirable.
 - define requirements for standards to support information exchange between and across the Life Science community.
- The PRISM Forum is open to individuals able to represent their organisations with respect to the above scope of PRISM by invitation.
- It meets normally twice a year, once in Europe and once in the USA.
- Special Interest Groups (SIGs)⁴ may be organised on agreed issues of topical relevance and are normally scheduled to overlap with and report directly to PRISM Forum meetings.
- Special Events may be organised as appropriate.

Code of Conduct

Meeting Participation

- Be accountable.
- Operate with integrity.
- Honour diversity of the participants.
- Be willing to share pre-competitive information in a timely manner.
- Strive for common understanding.
- Loyalty to the absent.
- If you choose to send a delegate to the meeting they hold your "proxy".

² Informatics is the collective term used to describe the disciplines of information science, information management and information technology and fully embraces other related terms such as information systems and information services.

³ The term "Life Science community" is used to embrace all those organisations that contribute to the discovery, development, registration, manufacture, marketing, sales and distribution of chemical or biological therapeutic entities. Such organisations would include but not be limited to: academic centres, biotechnology companies, discovery boutiques, pharmaceutical companies, medical device and diagnostic companies, contract organisations such as research, sales and manufacturing, agrochemical companies, nutraceutical companies, specialist value adding organisations such as pharmacovigilance service providers, vendors, consulting firms and national competent agencies.

⁴ Special Interest Groups are run under the aegis of the PRISM Forum. SIGs comprise a collection of individuals from different companies with relevant backgrounds who are invited to contribute a wide spectrum of knowledge and opinion on an issue of topical interest. The output of a SIG is normally a presentation to the PRISM Forum and potentially a subsequent White Paper.

Information Confidentiality

- Information should only be shared prudently at your company and all company specific data must be masked.
- Protect confidentiality and treat other company's information as you wish them to treat yours.
- Current membership of the PRISM Forum entitles the member to full access to all documentation from PRISM Forum meetings, SIGs, and Special Events.
- Invited attendees of SIGs or paying attendees of Special Events who are not members of PRISM are entitled to the documentation relevant to that particular event.

Between Meeting Commitments

- Meet agreed commitments and deadlines.
- Respond promptly to communications from other members.

Outcomes

- Enhanced peer contacts and personal networking.
- Determine best demonstrated practices and experiences.
- Identify trends in the technology and business.
- Personal development.

Governance

- The Steering Group is to be comprised of no more than two, voting, paid-up members from each organisation present at each meeting of the Forum.
- The Steering Group should agree budgetary guidelines annually.
- The Chairman and Executive Secretary should be elected annually.
- All meetings of the PRISM Forum (including, but not limited to, SIGs and Special Events) should be agreed by the Steering Group and coordinated by the Chairman and the Executive Secretary.
- The Chairman and Executive Secretary should be able to co-opt such administrative support as deemed necessary.

Cost

- Membership of The PRISM Forum is subject to a fee. The membership fee entitles members or their proxies to attend the usual two meeting per year.
- The membership fees, academic and industrial, will be assessed annually by the chairman and secretary and approved by a majority of the representatives at the Steering Group.
- Additional meeting fees may be levied for extraordinary events, meetings and special interest group meetings to cover the costs associated with running such meetings.
- Any Additional fees will be agreed in advance by the chairman and secretary and approved by a majority of the voting representatives of the Steering group.

Appendix 2

Members attending the 11th Meeting of the PRISM Forum

Thierry Barsalou	Ipsen	
Ronald Behling	Bristol-Myers Squibb	
Howard Bilofsky	Uni. Penn	bilofsky@pcbi.upenn.edu
Giorgio Bolis	Schering-Plough	
Beverley Eccles	Wyeth	
Tom Flores	GlaxoSmithKline	
Rowan Gardner	Biolauncher	Logistics
Chris Jones	CERN	Secretary
David Pioli	Aventis	
Uwe Trinks	Sentrx	
René Ziegler	Novartis	Chairman

Apologies

Stefan Blarer	Syngenta
Randal Chen	Abbott
Robert Herouet	Eli Lilly & Co
David Nielson	J&J PRD, Belgium
Bo Skoog	Biovitrum
Martyn Wilkins	AstraZeneca
John Wise	Tavistock Europe

Invited local hosts

George Morris	Novartis NIBR
Jane Prochadszka	Novartis NIBR

Invited for Knowledge Representation Session

Steve Gardner	Biowisdom
Sheryl Torr-Brown	Pfizer

Appendix 3

Those participating in the Special Interest Group on Text Mining

Ron Behling	Bristol-Myers Squibb
Beverley Eccles	Wyeth
Robert Edwards	Daichi
Tom Flores	GlaxoSmithKline
Richard Fritzon	GlaxoSmithKline
Rowan Gardner	Biolauncher, Chairman
Bruce Gomes	AstraZeneca
William Hayes	AstraZeneca, Facilitator
Chris Jones	CERN
Paula Matuszek	GlaxoSmithKline
Stuart Murray	Wyeth
Therese Vachon	Novartis

7 October 2004