


Cover Sheet for Proposals (All sections must be completed)			
Name of Call Area Bidding For (tick <u>ONE</u> only):			
Call I: Transforming Curriculum Delivery Through Technology (JISC funded)		x	
Call I: Transforming Curriculum Delivery Through Technology (Becta funded)			
Call II: Assessment demonstrators			
Call III: Course description and discovery			
Name of Lead Institution: St George's University of London (SGUL)			
Name of Proposed Project: Generation 4 (G4)			
Full Contact Details for Primary Contact:			
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Length of Project: 24months			
Project Start Date: October 2008		Project End Date: September 2010	
Total Funding Requested from JISC: £200,000			
Funding Broken Down over Financial Years (April - March):			
April 08 – March 09	April 09 – March 10	April 10 – March 11	
£79,665.80	£96,073.60	£24,260.60	£200,000
Total Institutional Contributions: £86,696			
St George's, University of London delivers a Problem-based learning curriculum for its undergraduate medicine course, which is paper-based, linear and inflexible. The aim of this project is to use recently-developed technologies to assist in the creation of a more interactive and integrated model for curriculum delivery in medicine. This will include interactive patient cases which provide students with the opportunity to make realistic decisions and explore the consequences of their actions. The intention is to create a more adaptive, personalised, competency-based style of learning which more closely matches to the role of the practitioner.			
I have looked at the example FOI form at Appendix B and included an FOI form in the attached bid (Tick Box)	YES ✓	NO	
I have read the Circular and associated Terms and Conditions of Grant at Appendix D (Tick Box)	YES ✓	NO	

1.0 FIT TO PROGRAMME OBJECTIVES AND OVERALL VALUE TO THE WIDER COMMUNITY

1.1 SUMMARY OF THE ISSUES

St George's, University of London (SGUL) delivers a Problem-based learning curriculum for its undergraduate medicine course. The nature of this paper-based delivery is linear and inflexible, and does not take advantage of the current technological developments which could radically improve flexibility, provide personalisation, and convert cases into an online interactive experience with choices and consequences.

1.2 BACKGROUND TO THE PROPOSAL

The Medical Curriculum at SGUL

In 2000 St George's Faculty of Medicine expanded its existing undergraduate medical education provision by providing a novel fast-track problem-based (PBL) MBBS curriculum for medicine taught over four years. Uniquely, this programme was open to graduates from any discipline including arts, humanities, law etc.

In 2007 St George's merged its undergraduate medical courses into a single course, with separate entry pathways for graduates, school-leavers, and non-traditional learners from under-represented sectors. The key phase where all these learners come together is a transitional year, known as the T year, which alternates PBL blocks with clinical attachments. Thereafter, all students are integrated for senior and final clinical attachments.

Problem-Based Learning in the Medical Curriculum

Increasingly, curricula in medicine are built around enquiry-based collaborative approaches to learning, predominantly Problem-based learning (PBL). In this approach, students work in teams to explore, manage or solve a problem. Guided by a tutor they share their existing knowledge and understanding relevant to an unfolding scenario, agreeing on what they need to learn and how to carry it out. Medicine and Healthcare education have been using this approach in the UK since the mid 1980s.

Typically, students discuss the emerging patient scenario at the beginning of the week. Throughout the week, they have access to many forms of face to face and online learning resources including sessional teaching, and in all cases, the activity in these sessions is related to the problem of the week. Such activities may include lectures, practical classes, tutorials and patient-based activities in the community or hospitals.

Needs of the learner for medical practice

When investigating problems, practitioners need to synthesise a range of relevant information, identify solutions, and test those solutions. Competence in this crucial process is necessary for all practitioners and requires an approach that differs from traditional teaching methods, where students are passive recipients of information.

SGUL has continued to look for ways of improving links between the process of student learning and the needs of the practitioner. This effort to mirror medical and healthcare practice is best illustrated by reviewing stages in the evolution of our teaching methods. Our teaching and learning activities have increasingly adopted the approaches of practitioners in medicine and healthcare in a way that builds on **generations** of pedagogical paradigms. These paradigms are described below as G1-4:

G1 - 'traditional' teaching in medicine, which would normally begin with modules in single discipline bioscience which in themselves had little relationship to ultimate learner needs (1980s).

G2 - the teaching moved to a body systems approach, e.g. respiratory system, which had greater relevance to clinical specialties e.g. chest physicians (1990s). This was a useful advance, but students still did not practise the competencies of practitioners, in solving even moderately complex problems.

G3 - began with the process of learning through scenarios based on practice which tied in sound knowledge and skills to the needs of the eventual practitioner. A common variant of this style in medicine is Problem-Based Learning (PBL) which ties in learning, developing decision-making, and problem solving skills. Students work through the patient case page by page with a facilitator, discussing the case, exploring possible diagnoses, investigations and treatments identifying learning objectives, and possible solutions as they go.

G4 – the next generation, proposed in this application, and described in the next section

Limitations of G3

Although PBL has proved effective and popular, particularly for the first year of our course, there are constraints in its paper-based nature. The paper cases used in tutorials can only proceed in a single direction. In this regard, cases in G3 are linear. Learners can only follow one path. Such cases may have limited use in developing clinical reasoning, and are unrealistic for emulating real life, where there are frequently several ways to tackle a problem and mistakes made may not be immediately obvious. This approach may be less engaging for senior students than more complex, multi choice scenarios.

Merrill¹ suggests changing problems as learners progress by adding components to make them more realistic, and several studies have considered the guidance-fading effect, that active problem solving can be increased and guidance can be reduced as learners become more competent, and better able to deal with their working memory limitations². Ironically, over recent years the PBL case in medicine has generally become more detailed, structured and restrictive in comparison with, say, cases pioneered at the University of McMaster in the 1960's.

Furthermore, PBL (as G3) has not taken full advantage of the possibilities for searching, reflection, testing and personalisation offered by technological developments. Simply putting PBL online has proved to be a poor use of the technology. For example, at a recent meeting of the 'Flinders collaboration' (Adelaide March 2008: a group of universities using a similar PBL style), five out of seven universities had found that simply putting PBL online was deeply unpopular with students who saw no real advantage to the change. This is in contrast to the student response to interactive online Virtual Patients at SGUL (see below).

1.3 G4: THE NEXT GENERATION

Hence SGUL's proposal to move to G4 - integrated, adaptive and authentic case-based learning. The aim of the G4 model is for medical students to engage in collaborative learning activities that more directly mimic the competencies of experienced medical practitioners. The proposed project integrates learning resources and technologies around a core interactive case based technology - the virtual patient (VP) - and will seamlessly blend online and face-to-face learning.

The role of VPs and associated learning resources

A VP has been defined as "an interactive computer simulation of real-life clinical scenarios for the purpose of medical training, education, or assessment³". Using the VP player Labyrinth at SGUL, VPs have been used to offer students the opportunity to take decisions, explore different choices, and follow the consequences of those choices. VPs are ideal for rehearsal of clinical decision-making for medical and healthcare training and can be used for adaptive forms of assessment.

This G4 model integrates (face to face) small group learning with a range of existing technologies: ePortfolios, adaptive formative assessments, and a wide range of repurposed learning resources. It will also explore the value of Second Life. Components of this integrated delivery have already been supported by JISC funding (see resources) and disseminated throughout the learning community.

The Virtual Patient as an adaptive technology

Learning technology can be particularly effective when it adapts a lesson to decisions made by learners. This occurs in many computer simulators, such as flight simulators, driving simulators, and virtual patients⁴. In important ways, these simulators adapt learning activities in ways that customise how learners proceed, the specific feedback they view, and reports showing their progress⁵. From this perspective, each group of students will have a different experience, or path, in the same VP. A final point is that the diverse paths in a VP are designed so that all paths address a lesson's learning objectives, with careful quality assurance that offers subject matter experts multiple opportunities to review a VP. This quality assurance will include a separate and

¹ Merrill, MD (2002). "A pebble-in-the-pond model for instructional design. *Performance Improvement* **41**:39-44.

² Sweller, J (2006). "The worked example effect and human cognition". *Learning & Instruction* **16** (2): 165-169.

³ Ellaway R et al. (2006) . An architectural model for MedBiquitous virtual patients. Baltimore, MD: MedBiquitous. http://www.medbiq.org/working_groups/virtual_patient/MVP_WhitePaper_11Sep2006.pdf

⁴ Steadman, R. H., Coates, W. C., Huang, et al. (2006) Simulation-based training is superior to problem-based learning for the acquisition of critical assessment and management skills. *Critical care medicine*, 34, 151-7.

⁵ Park, O.-C. and J. Lee (2004). Adaptive instructional systems. Handbook of research on educational communications and technology. D. H. Jonassen. Mahwah, N.J., Lawrence Erlbaum: 651-684.

specially-designed "assessment VP" that will measure how well students have reached the learning objectives.

2.0 DESCRIPTION OF WORK

The aim of this project is to use recently-developed technologies to assist in the creation of a more interactive and integrated model for curriculum delivery in medicine. The intention is to create a more adaptive, personalised, competency-based style of learning which more closely matches the role of the practitioner⁶. The G4 proposal integrates all technologies and resources described below, rolls these out to the Transition year (T yr) of undergraduate medicine, and thereafter embeds the integrated delivery system into the rest of the course.

The specific objectives are:

- To review existing paper based PBL cases and re-write where necessary to fit new curriculum objectives.
- To deliver 18 interactive virtual patient cases as replacements for PBL paper based cases.
- To deliver 36 adaptive assessments with these cases.
- To integrate an array of resources, assessments, the eportfolio and web 2.0 tools with all administrative course elements and face to face teaching, and to include delivery to mobile devices.
- To produce a complete set of guidelines, interactive open source tools, and training and learning scenarios to enable institutions and teachers in different disciplines to set up a similar system.
- To rollout these supporting technologies to the rest of the undergraduate medicine (MBBS) course.

The review and creation of the scenarios will be led by subject matter experts (SMEs). The SMEs are based within the medical school and across the NHS Trust. Their clinical expertise will be bought-in on a case by case basis. In the first instance the SMEs will be guided by existing clinical experts on the creation of these VPs, and guided on the types of resources available and where these can be added to support the students. Alongside this, formative assessments can be added to build in the adaptive approach. Some technical development may be needed to generate the adaptive model. Once the content has been created, the technical development of resource can commence, and the SMEs will work alongside the learning technologist.

2.1 RESOURCES AND STANDARDS

The range of resources and tools needed for the integrated G4 delivery is currently available. Several are part-funded by JISC, and/or open source. We will explore other open source tools as they become available.

(i) Interactive VPs

SGUL has created a generic 'model' for the design of interactive virtual patients which is simple to use, yet flexible enough to simulate real decision-making. More than 60 members of staff have voluntarily attended VP workshops⁷. We have recently used VPs in two separate trials to replace conventional paper based learning, as described under G3 (see section 4.1).

(ii) Supplementary learning resources to embed in G4

Key Topics: a large collection of learning resources developed in house to cover the science needs of medicine and healthcare students. These resources were repurposed to different educational levels including FE, led by a JISC funded project REHASH⁸, under the distributed e-learning programme. These resources were content-packaged using RELOAD, and distributed via our project website and the national repository JORUM⁹. SGUL has over 400 of these topics, stored in a searchable database. These resources are image rich and cover the basic and clinical sciences objectives for the first two years of the courses.

Clinical skills online: originally a subject centre mini-project to create clinical skill videos that has been continually added to. The videos are freely available through our website¹⁰ or through the SGUL YouTube

⁶ Joint Information Systems Committee (2008) *Tangible benefits of e-Learning: Does investment yield interest?*, Northumbria University.

⁷ VP workshops, <http://www.elu.sgul.ac.uk/virtualpatients/workshops.htm>

⁸ REHASH – Re-purposing Existing Health Assets to SHare, <http://www.elu.sgul.ac.uk/rehash/>

⁹ JORUM, <http://www.jorum.ac.uk/>

¹⁰ CSO – Clinical Skills Online, HEA 2004-present <http://www.slu.sgul.ac.uk/cso>

channel¹¹. These videos have proved to be highly successful globally, with more than 1 million visitors and 100,000 downloads.

Web Libraries: assembled collections of links to web resources tailored to each case or subject area.

Anatomy and Pathology trails: online paths through structured collections of specimens which describe and illustrate the normal and disease body systems of the PBL/VP patient case of the week.

ePET: open source eportfolio, originally supported by JISC funding, which has been customised to fit the needs of competency based courses.

Adaptive formative assessments: Formative assessment, adapt to the performance/progress of the learner. These types of assessment VPs have attracted considerable interest at a major international medical education conference¹².

(ii) Open Source tools

Vue: a freely available topic mapping tool from Tufts University¹³, Boston USA used for designing clinical scenarios, narratives and schemas, and used to import scenarios into Labyrinth.

OpenLabyrinth: an open source virtual patient authoring, delivery and analysis toolset¹⁴, largely developed by Dr Ellaway and now in use in a number of different medical schools worldwide. It is currently being recoded at SGUL to improve functionality and allow greater flexibility in the types of VPs which can be produced. OpenLabyrinth exports and imports to the MedBiquitous¹⁵ Virtual Patient standard.

The Medbiquitous Virtual Patient (MVP): an XML data standard for the exchange and reuse of virtual patients. It is freely available to the wider community and is currently undergoing ANSI accreditation. It is based on other commonly-used standards such as SCORM, LOM metadata and MeSH.

Second Life: a freely-available multi-user virtual world. A player for the MedBiquitous Virtual Patient packages has been developed as part of the JISC-funded PREVIEW¹⁶ project. The web services developed for Second Life process VP scenarios as a web service based on existing standards for web communication protocols.

Moodle: this Virtual Learning Environment was adopted by SGUL in 2005, one of the earliest HE institutions to do so. It has been fully customised to meet the needs for our learners and teachers.

3.0 WORKPLAN

3.1 Project Management

Project management will be based upon Prince2 methodology. The recommended project plan will be updated within 1 month of the start of the project and will be used as a guide throughout the project lifecycle.

3.2 Key Deliverables

Deliverable	Work Package	Completion date	Milestone
Updated project plan	1	31/10/08	Yes
Evaluation, QA, Dissemination plan	1	31/10/08	
Exit and sustainability plan	1	31/10/08	
Project web site	2	05/01/09	Yes

¹¹ CSO on YouTube, 2007-present, <http://www.youtube.com/user/sgulcso>

¹² MedBiquitous annual conference,

http://www.medbiq.org/events/conferences/annual_conference/2008/presentations.html#THURSDAY

¹³ VUE – Visual Understanding Environment, <http://vue.uit.tufts.edu/>

¹⁴ Labyrinth - <http://labyrinth.mvm.ed.ac.uk/>

¹⁵ MedBiquitous, <http://www.medbiq.org/>

¹⁶ PREVIEW – Problem-based learning in Virtual Interactive and Educational Worlds <http://www.elu.sgul.ac.uk/preview/blog/>

Report detailing current practice	3	19/11/08	Yes
Finalised new delivery plan	4	06/01/09	Yes
Selection of VPs for adaptation	5	24/02/09	Yes
18 adapted and enriched interactive cases	6,7	06/10/09	Yes
36 adaptive formative assessments	7	14/07/09	Yes
Integration of learning resources eportfolio, web 2.0 technologies	7	19/08/09	Yes
Training and support documentation	11	10/06/09	
Cases delivered with the curriculum (Go-live)	12	05/10/09	Yes
Final evaluation report	13	16/08/10	Yes
Progress reports and financial statements: 2 per year	15		
Final report including financial statement	15	28/09/10	Yes

3.3 Project Plan

Below is an overview of the project plan and the associated work packages, a detailed project plan listing all the tasks, dependencies, resource and Gantt chart can be found in Annex A:

Generation 4 (G4)

WP1	Start up	Mon 06/10/08 Fri 01/10/10
WP2	Web Presence	Mon 03/11/08 Mon 23/02/09
WP3	Review of current practice at SGUL	Mon 20/10/08 Wed 19/11/08
WP4	New delivery plan	Thu 20/11/08 Tue 06/01/09
WP5	Select VP cases for repurposing and enrichment	Wed 07/01/09 Tue 24/02/09
WP6	Create e-content matrix of learning resources and tools	Wed 25/02/09 Fri 01/10/10
WP7	VP repurposing and content enrichment	Wed 25/03/09 Tue 30/06/09
WP8	Review other modules/ years, integrate enriched content	Wed 07/10/09 Thu 10/12/09
WP9	Quality assurance review	Wed 01/07/09 Tue 14/07/09
WP10	Testing	Wed 15/07/09 Fri 31/07/09
WP11	Training plan and support documentation	Wed 25/02/09 Thu 18/06/09
WP12	Embedding into the curriculum and go-live	Mon 03/08/09 Wed 14/07/10
WP13	Evaluation	Thu 03/09/09 Wed 18/08/10
WP14	Awareness and dissemination	Tue 06/01/09 Thu 30/09/10
WP15	Reporting	Fri 27/02/09 Tue 28/09/10

The learning material will be delivered at the start of the transition year (T year) October 2009.

NB: the resource abbreviations used in the project plan: CC – Chair, Curriculum Development, PD – Project Director, PM – Project Manager, ETL – E-Learning Educational Lead, SME – Subject Matter Expert, LT – Learning Technologist, RL – Research Lead, ELU – E-learning Unit

3.4 Risk Management

Risk	P	S	Action to prevent/Manage risk
Staffing: Failure to appoint clinical experts	1	4	Workload will be divided between teaching staff at SGUL; financial support available for the additional work for existing part-time staff.
Staffing: Departure of key staff	3	1	Workload to be shared among like skilled staff – SGUL is fortunate to have a range of skills.
Organisational: Failure to engage staff with the project	1	3	Financial incentive for staff involved in construction, early engagement of tutors, positive response from the pilot.
Organisational: Failure to meet project milestones, including	2	4	Prior agreement with funded staff on a framework for triggering relocation of task as necessary. Draw upon the experiences of the

completion of cases on time			pilot which was completed to time. Schedule for planning resources, repurposing and enrichment with built in safety factors.
Organisational: Failure to complete key documentation on time	1		High quality management and communication plan: complete as soon as possible and appoint team members to help where necessary; there are sufficient trained e-Learning managers and skilled personnel at SGUL to ensure satisfactory completion.
Organisational: Difficulties with/reliability of user feedback	1	2	Involve all stakeholders in the evolution of evaluation strategy; strategy to include collection of data from the start of the project; external evaluator to assist with collection of data and analysis. No difficulties experienced with the pilot.
Overspend on budget	2	1	Monies to be sourced from internal funding.
Technical: difficulties due to implementing adaptive teaching	1	3	Traditional paper methods of PBL will be used in the short term until the risk is resolved.
Technical: Failure to find suitable resources	2	2	Create new resources to compliment the case, in-house.

3.5 IPR and Copyright

Many of the tools used, such as the VP player (OpenLabyrinth) are already freely available. The resources to support VPs will be made available via the national repository (JORUM). The content of the case itself may be restricted since VPS need to be used in subsequent years, without revealing the case prematurely. Content made available will be for educational purposes, covered by creative commons license.

4.0 ENGAGEMENT WITH THE COMMUNITY

4.1 Needs analysis

(i) VP trial

At SGUL two separate trials looked at the impact of converting existing PBL cases for use online. Paper PBL cases were adapted for online use, with two formats: 'branching' - which allowed students to choose from options and explore the consequences, and 'linear', without the decision pathways. A small preliminary trial with first year medical students yielded encouraging feedback, and so a second more comprehensive trial was carried out with second year medical students, with an entire module of five cases undergoing the same adaptation. A controlled trial allowed us to run, each week, five tutorial rooms with a control 'linear' case, and five tutorial rooms with the branching VPs. The next week, the groups would be reversed, so that by the end of the module all students had experienced an equal number of linear and branched VPs.

Students and tutor surveys strongly supported the use of the branching VPs. Both found the options in the case created a more engaging session, and students believed that to some extent they learned more. The clear message was that the most important element of online VPs was the 'options and consequences'.

(ii) Formal learner engagement

Students have recently established a Student e-Learning Committee with representatives from each year of the courses. SeLC reports directly to a high level Teaching committee and considers, (a) what students believe is needed and (b) their response to any new initiatives. The Project Manager will be in attendance at SeLC.

4.2 Stakeholder analysis

Stakeholder	Role/Interest/Stake	Process of engagement
Medical and other healthcare students SGUL	End-Users of curriculum innovations. Value added by VPs and adaptive technologies, to enhance experience, develop decision-making and increase personalization.	Full representation on curriculum development teams, and G4 development team.
Student e-Learning Committee (SeLC)	Reporting to high level Learning Teaching and Assessment Committee 3 times/year.	SGUL e-learning manager (member of the core development team) co-opted to SeLC.

SGUL institution, teachers	Create, deliver and provide support for the curriculum. Achieve skills in new technological developments.	PM and ELT engage with course and module teams, discussions at Teaching and Learning Committees.
Wider community Medicine, Healthcare courses and teachers	Recipients of integrated technologies, to upgrade curricula. Sharing experiences and resources as a community of purpose.	Training by educational technology lead, internal dissemination.
The PBL community	Differences, benefits of interactive online PBL.	Website, Medical & Healthcare conf, (ASME, AMEE, Ottawa), publications.
The JISC community	Pedagogical and technological innovations will provide opportunities to add value to existing curricula in the wider community.	Website, Dissemination activities, JISC technology meetings/ demonstrations, conferences, publications.
The European medicine, VP, and healthcare standards communities	Widespread interest in use and re-use of resources and concepts in medical and healthcare institutions, and user groups, across Europe, and to a lesser extent the USA and Australasia.	Dissemination through the EC eViP programme ¹⁷ , MedBiquitous Europe, and all invited presentations and workshops.

4.3 Evaluation

An extensive evaluation strategy will be produced within one month of the start of the project; which is factored into the project plan (see work package 1). It will include all key stake-holders. Key elements within the strategy will be the adaptive technologies involving VPs and adaptive assessment, analysis of student response to choices and consequences, the effect of personalisation on their learning, and performance in assessments. Milestones are shown in the project plan and key deliverables table (3.2). The evaluation will be an ongoing process through different stages of the project cycle, consisting of focus groups with students, questionnaires with staff and students, interviews with PBL tutors and SMEs. An external evaluator, will be appointed to assist and guide the project team throughout the project.

4.4 Exit and sustainability

SGUL will be pleased to take part in any feedback and dissemination events. The project will be sustained by:

1. Long term institutional commitment and support for development and roll out.
2. Reuse and repurposing of content created.
3. Roll out to other years of the medical curriculum and to other courses.
4. Development of further resources to support teaching where needed.
5. The use of common standards for all resources - e.g. MedBiquitous standard (MVP) for VPs, assessments, SCORM packaging for all resources.
6. Sharing findings of evaluation with stakeholders and with the wider community.
7. Dissemination events - national and international.
8. Dissemination through the European VP network, through MedBiquitous Europe, and the eViP project, JISC and HEA websites, the Flinders Collaboration, and to other medical and healthcare faculties and schools
9. Dissemination and sharing of useful content and tools – e.g. skills videos, exemplar VPs and applications such as Open Labyrinth.
10. Maintain links with clinical experts, connected with ELU research and development programmes.

5.0 Budget

JISC funding would allow us to make a significant step change in our delivery (from G3 to G4), a technological and pedagogical step forward that would not normally be possible without the additional funding for SMEs, the direct involvement of senior academics, change-managers and university leadership, and the structural benefits that derive from co-ordinated project-management. SGUL has a track record of making its outputs and resources from grant funded projects freely available to the community (REHASH, PREVIEW, ReViP).

¹⁷ eViP – Electronic Virtual Patient, European Commission, <http://www.virtualpatients.eu/>

Directly Incurred Staff	Apr08–Mar09	Apr09–Mar10	Apr10 – Mar11	TOTAL £
Post, Grade, No. Hours & % FTE	£0	£0	£0	£0
Total Directly Incurred Staff (A)	£0	£0	£0	£0
Non-Staff				
	Apr08–Mar09	Apr09–Mar10	Apr10 – Mar11	TOTAL £
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Total Directly Incurred Non-Staff (B)	£7,200	£10,500	£10,500	£28,200
Directly Incurred Total (C) (A+B=C)	£7,200	£10,500	£10,500	£28,200
Directly Allocated				
	Apr08–Mar09	Apr09–Mar10	Apr10 – Mar11	TOTAL £
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Other	£0	£0	£0	£0
Directly Allocated Total (D)	£71,590	£84,748	£16,158	£172,496
Indirect Costs (E)	£36,000	£42,000	£8,000	£86,000
Total Project Cost (C+D+E)	£114,790	£137,248	£34,658	£286,696
Amount Requested from JISC	£79,665.80	£96,073.60	£24,260.60	£200,000
Institutional Contributions	£35,124.20	£41,174.40	£10,397.40	£86,696

Percentage Contributions over the life of the project	JISC 69%	SGUL 31 %		Total 100%

NB Additional institutional funding, totalling approximately £200,000, is provided in contributions of efforts from module /course staff, ICT and e-Learning. These contributions are embedded within the traditional support for development of the MBBS the course, and therefore have not been listed in the core G4 team budget, above.

6.0 THE PROJECT TEAM

6.1 Previous experience of the project team

SGUL is an independent medical and healthcare HEI and a member of the federation of colleges that constitute the University of London. Its independence has enabled it to move swiftly in response to the ever-changing environment in education and it has a strong reputation for curriculum quality and educational innovation. In the most recent external assessment of teaching quality, SGUL achieved the highest score for medicine of any London institution, and was rated as excellent across the range of its provision. SGUL fosters interdisciplinary learning for traditional and non-traditional students entering the medical and healthcare professions to support inter-professional teamwork. SGUL works in strategic partnership with Kingston University (KU), notably through the joint Faculty of Health and Social Care Sciences; and in strategic partnership with KU and Royal Holloway University of London in an alliance supported by HEFCE. This alliance (Swan – the SW London Academic Network) is committed to high quality research and education to support health and social care provision.

Technologically, SGUL has benefited from one of the fastest growing e-Learning Units in Europe, with a commitment to developments which directly influence pedagogy. The eLearning Unit is currently running, or has recently run, three major JISC projects (REHASH, REVIP¹⁸, and PREVIEW) and leads a large scale European programme eViP, and the common standards group MedBiquitous Europe. One of its strengths is in having highly trained (Prince2) manager/developers all of whom also possess bioscience degrees, experience as technical developers and are able to create innovative projects and carry out evaluations. Ten out of eleven of its last peer-reviewed grant applications have been funded, all are having/ have had successful outcomes; they range from healthcare standards development, implementation of PBL in virtual worlds, and evaluation of resource/tools embedding in the curriculum.

6.2 Core project team:

Chair, Curriculum development: Professor Sean Hilton, Deputy Principal

Professor Sean Hilton is Deputy Principal of St. George's, University of London, and Institutional lead for Education. He qualified MB.BS (London) in 1974, and has been a General Practitioner in Kingston upon Thames since 1979. At St. George's, he was appointed as Professor of Primary Care in 1993; Dean of Undergraduate Medicine from 1997-2002; and Vice-Principal (Teaching and Learning) from 2004-2007. A non-executive Board member of the St. George's Healthcare Trust since 2003, he is an elected member of the Foundation Council of the Academy of Medical Educators (AME), and has an interest in standards in medical education and elearning. He is particularly interested in personal and professional development for medical students and doctors. He was a member of the Royal College of Physicians' Working Party on Medical Professionalism from 2003-5 and recipient of a Leverhulme Trust Fellowship to study medical professionalism in the USA and Australia in 2002-3. He is a past Chairman (1998-2001) and Secretary (1991-95) of the Society for Academic Primary Care, and also Chairman of the Anglo-European College of Chiropractice.

Project director: Dr Terry Poulton

Dr Terry Poulton is Associate Dean for e-Learning in the Dept of Medical Education and Head of the e-Learning Unit at St George's University of London. He is Project Director for a number of major grants between 2004-2007, totalling more than £2 million; these include ADAMs, REHASH, REVIP, the SGUL lead for PREVIEW (all JISC) Clinical Skills Online (HEA), the European multi-centre eViP project (EC), for which he received the Medbiquitous Innovation award in 2008, and a number of smaller projects. He founded the European healthcare standards group, Medbiquitous Europe. He has had more than 40 publications in his career.

¹⁸ REVIP – Repurposing Existing Virtual Patients, <http://www.elu.sgul.ac.uk/revip/>

Project Manager: Trupti Bakrania

Trupti Bakrania is the e-Learning Manager for the e-Learning Unit at St George's Medical School. Her main role is to manage the institutional VLE (Moodle) and support the users. This includes the creation of interactive learning resources, on-line formative assessments and to maintain the quality of these using the in-house quality assurance checks. Trupti has a strong background in biosciences that has proved very useful in giving a broad understanding of basic and clinical science teaching in medicine and healthcare.

Assessment Lead: Professor Dame Lesley Southgate

Professor Dame Lesley Southgate is Professor of Medical Education at St George's Hospital Medical School. She is a general practitioner and was active in patient care until she became President of the RCGP in 2000. From 1996-2004 she led the President's programme to develop and implement the assessment methods for the GMC performance procedures for the medical profession. She was a member of the Postgraduate Medical Education Training Board (PMETB) to November 2006. She has just been awarded the prestigious Hubbard award by the US National Board of Medical Examiners for outstanding contribution to assessment of competence and performance of doctors in the international arena. Current major responsibilities include the leadership of the recertification technical group for British GPs. Dame Lesley is also President of ASME.

E-Learning Lead: Dr. Steven Malikowski

Dr. Steven Malikowski is the E-Learning Lead Manager for the ELU. Previously as an Associate Professor at St. Cloud State University, a university with 15,000 students in the State of Minnesota, USA, he managed Statistical Consulting and Research Support, a group that served the entire university. Since 1993, he has created and researched e-learning at the University of Minnesota, Indiana University, and Walden University, which exclusively offers courses online. His primary role at St. George's is to identify learning needs that can be resolved with technology. He also develops and implements strategies for evaluating the use of e-learning.

VP /Labyrinth co-coordinator Emily Conradi

Emily Conradi is the e-Projects Manager for the e-Learning Unit. Most of the projects she is involved with focus on virtual patients design and development. Current projects include the JISC-funded PREVIEW project to evaluate the use of virtual patients within Second Life. Emily also explores and evaluates curriculum integration for virtual patients, and runs virtual patient design and development courses and workshops.

Research and evaluation consultant: Dr Rachel Ellaway

Dr Rachel Ellaway is the Assistant Dean and Associate Professor for Education Informatics at the Northern Ontario School of Medicine and Visiting Professor in Education Informatics at St George's Medical School in London, UK, and she has been involved in e-learning development, practice and research for more than a decade. She is the co-chair of the MedBiquitous Virtual patient Working Group, the chair of the Association of Faculties of Medicine of Canada Resource Working Group on Medical Informatics and is a board member for Medical Teacher. The work she led in developing and implementing profession-focused VLEs at the University of Edinburgh was recognised in the award of a Queen's Anniversary Prizes for Higher and Further Education, the first such award given to work involving learning technologies.

Additional core team members: Technical developer and Learning Technologist (to be appointed)**6.3 Current relevant funded projects**

- In Europe, SGUL is leading a major 3-year project funded by the European Commission, called eViP, investigating the sharing of VPs between the 7 project partners with a view to creating a comprehensive multilingual, multicultural, European pool of VPs. This project is now underway and is already making excellent progress, and is hugely raising the global profile of VPs and European elearning.
- ReViP, funded by JISC, is a project tackling the repurposing technical issues arising from sharing content between different VP players and systems in order to smooth the way for the pedagogical, language, and cultural changes needed to successfully transfer and implement a VP from one country to another.
- PREVIEW is a JISC-funded project to create PBL scenarios in Second Life for distance learning healthcare students. Six months into the project, it has already surpassed expectations, and the patients can be found on SGUL's SL Island. The Paramedic patients are VPs, use the MedBiquitous VP standard, and are interoperable with Labyrinth.

7.0 FOI Form (completed)

We would like JISC to consider withholding the following sections or paragraphs from disclosure, should the contents of this proposal be requested under the Freedom of Information Act, or if we are successful in our bid for funding and our project proposal is made available on JISC's website.

We acknowledge that the FOI Withheld Information Form is of indicative value only and that JISC may nevertheless be obliged to disclose this information in accordance with the requirements of the Act. We acknowledge that the final decision on disclosure rests with JISC.

Section / Paragraph No.	Relevant exemption from disclosure under FOI	Justification

8.0 Appendices

Annex A: Detailed project plan listing all the tasks, dependencies, resources, milestones and Gantt chart


Annex B: Summary of CVs of Core project team

Annex C: Institutional Support letter from Deputy Principal at SGUL

ID	Task Name	Start	Finish	Predecessors	Resource Names	
1	Generation 4 (G4)	Mon 07/07/08	Thu 30/09/10			Jun
2	WP1 Start-up	Mon 06/10/08	Tue 06/01/09			
3	Assemble project team	Mon 06/10/08	Fri 17/10/08		PM,PD	
4	Hold project kick-off meeting w/stakeholders	Mon 20/10/08	Mon 20/10/08	3	PM and ALL	
5	Engagement with the support and synthesis project	Mon 06/10/08	Tue 06/01/09		ALL,PM	
6	Finalise JISC documentation	Tue 21/10/08	Fri 31/10/08			
7	Finalise JISC project plan	Tue 21/10/08	Fri 31/10/08	4	PM,PD,ETL	
8	Finalise copy for JISC project page	Tue 21/10/08	Fri 31/10/08	7SS	PM	
9	Finalise JISC plans dossier	Tue 21/10/08	Fri 31/10/08			
10	Communications plan	Tue 21/10/08	Fri 31/10/08	7SS	PM	
11	Quality assurance plan	Tue 21/10/08	Fri 31/10/08	7SS	PM	
12	Evaluation plan	Tue 21/10/08	Fri 31/10/08	7SS	PM,RL,ETL	
13	Dissemination plan	Tue 21/10/08	Fri 31/10/08	7SS	PM	
14	Exit and sustainability plan (high level)	Tue 21/10/08	Fri 31/10/08	7SS	PM	
15	WP2 Web presence	Mon 03/11/08	Fri 13/02/09			
16	External web presence	Mon 03/11/08	Mon 05/01/09			
17	Create sitemap for website inc. blog	Mon 03/11/08	Fri 14/11/08	14	LT,PM	
18	Stakeholder review of website	Mon 17/11/08	Thu 11/12/08	17	ALL	
19	Final sign-off for website	Fri 12/12/08	Thu 18/12/08	18	PD	
20	Launch external website inc. blog	Mon 05/01/09	Mon 05/01/09	19	LT	
21	Internal Moodle presence	Tue 06/01/09	Fri 13/02/09			
22	Create sitemap for Moodle microsite	Tue 06/01/09	Mon 19/01/09	20	LT,PM	
23	Stakeholder review of existing microsite	Tue 20/01/09	Fri 13/02/09	22	ALL	
24	WP3 Review of current delivery at SGUL	Mon 20/10/08	Wed 19/11/08			
25	Conduct review of curricula delivery	Mon 20/10/08	Fri 14/11/08	3	PD,ALL,CC	
26	Produce report detailing current practice	Mon 17/11/08	Wed 19/11/08	25	PD	
27	WP4 New delivery plan	Thu 20/11/08	Tue 06/01/09			
28	Create a plan for new delivery	Thu 20/11/08	Wed 10/12/08	26	PD,ALL	
29	Create support plan for students and staff	Thu 11/12/08	Wed 17/12/08	28	ETL,ALL	
30	Final sign-off on new delivery model	Thu 18/12/08	Mon 05/01/09	29	PD	

Project: work_planv6.1
Date: Fri 25/07/08

Task 

Milestone 

External Tasks 

Split 

Summary 

External Milestone 

Progress 


Project Summary 

Deadline 

ID	Task Name	Start	Finish	Predecessors	Resource Names	
31	Finalise delivery model and distribute	Tue 06/01/09	Tue 06/01/09	30	PM,ETL	Jun
32	WP5 Select VP cases for repurposing and enrichment	Wed 07/01/09	Tue 24/02/09			
33	Review existing VP/PBL cases	Wed 07/01/09	Tue 03/02/09	31	CC,ETL,PD,SME	
34	Select VP/PBL cases based on new delivery plan and 2009 syllabus	Wed 04/02/09	Tue 24/02/09	33	CC,SME,ETL,PD	
35	WP6 Create e-content matrix	Mon 07/07/08	Thu 28/01/10			
36	Create an e-content matrix outlining required resources per VP	Wed 25/02/09	Tue 03/03/09	34	LT,PM	
37	Source resources from St George's e-content collection (REHASH Key Topics, CSO videos etc.)	Wed 04/03/09	Tue 10/03/09	36	LT,PM	
38	Source resources from external repositories (e.g. Jorum, mededportal, pocketsnips etc.)	Wed 11/03/09	Tue 24/03/09	37	LT,PM	
39	Update and maintain matrix throughout the course of the project	Mon 07/07/08	Thu 28/01/10		LT,PM	
40	WP7 VP Repurposing and content enrichment	Wed 25/03/09	Tue 06/10/09			
41	Start repurposing VPs case-by-case from linear to branched	Wed 25/03/09	Tue 06/10/09	38	SME,LT,PM,PD	
42	Start generating adaptive formative assessment and feedback	Wed 25/03/09	Tue 14/07/09	41SS	SME,ETL,LT,PM	
43	Start content enriching VPs case-by-case based on sourced content	Wed 15/07/09	Tue 11/08/09	42	LT,PM	
44	Collate all repurposed and enriched VPs in Moodle	Wed 12/08/09	Tue 18/08/09	43	PM	
45	Integration of eportfolio, web 2.0	Wed 19/08/09	Wed 19/08/09	44	LT	
46	Create tutor notes in parallel	Wed 25/03/09	Tue 06/10/09	41SS	SME,PD,ETL,PM	
47	WP8 Review other modules and years and integrate enriched content	Wed 07/10/09	Thu 10/12/09			
48	Review existing modules and years	Wed 07/10/09	Tue 03/11/09	46	SME,PD,CC,ETL	
49	Create a draft plan of enriched content integration	Wed 04/11/09	Tue 10/11/09	48	ETL,PM	
50	Integrate enriched content into modules and years via Moodle	Wed 11/11/09	Tue 08/12/09	49	ETL,LT	
51	Go-live	Wed 09/12/09	Thu 10/12/09	50	LT,PM	
52	WP9 Quality assurance review	Wed 25/03/09	Tue 13/10/09			
53	SME review of all VPs	Wed 25/03/09	Tue 06/10/09	41SS	SME	
54	ELU design team review of all VPs	Wed 25/03/09	Tue 06/10/09	41SS	ELU	
55	Make changes based on review	Wed 07/10/09	Tue 13/10/09	54	LT	
56	WP10 Testing	Wed 25/03/09	Tue 13/10/09			
57	Internal testing of all VPs within Moodle	Wed 25/03/09	Tue 06/10/09	41SS	ELU,PM	
58	Cross browser and platform testing	Wed 25/03/09	Tue 06/10/09	41SS	LT	
59	Make changes based on review	Wed 07/10/09	Tue 13/10/09	58	LT,PM	
60	WP11 Training plan and support documentation	Wed 25/02/09	Thu 18/06/09			

Project: work_planv6.1
Date: Fri 25/07/08

Task 

Milestone 

External Tasks 

Split 

Summary 

External Milestone 

Progress 

Project Summary 

Deadline 

ID	Task Name	Start	Finish	Predecessors	Resource Names	
						Jun
61	Create training plan and support documentation for staff	Wed 25/02/09	Tue 02/06/09	34	ETL	
62	Create training plan and supporting documentation for students	Wed 25/02/09	Tue 02/06/09	61SS	ETL	
63	Stakeholder review of plan and documents	Wed 03/06/09	Tue 09/06/09	61,62	ALL	
64	Make changes to plan and documents based on review	Wed 10/06/09	Tue 16/06/09	63	ETL	
65	Final sign-off of training plan and support documentation	Wed 17/06/09	Thu 18/06/09	64	PD	
66	WP12 Embedding into the Curriculum and go-live	Thu 03/09/09	Mon 17/05/10			
67	Pre-live optimisation of all content and Moodle presence	Thu 03/09/09	Fri 02/10/09		LT,PM	
68	Go-live for transition year	Mon 05/10/09	Mon 05/10/09	67	LT	
69	Update and maintain resource delivery based on new model	Tue 06/10/09	Mon 17/05/10	68	LT	
70	WP13 Evaluation	Mon 03/11/08	Mon 06/09/10			
71	Revisit agreed plan and make any ammendments as required	Tue 06/10/09	Mon 16/11/09	12,68	RL,ETL,PD,PM	
72	Continuous evaluation of processes	Mon 03/11/08	Mon 06/09/10	12	RL,ETL,PD,PM	
73	Create evaluation instruments based on plan	Tue 17/11/09	Mon 25/01/10	71	RL,ETL,PD,PM	
74	Conduct evaluation as per revised plan using new instruments	Tue 26/01/10	Mon 22/03/10	73	RL,ETL,PD,PM	
75	Analyse data from evaluation studies	Tue 23/03/10	Mon 17/05/10	74	RL,ETL,PD,PM	
76	Create reports with conclusions and lessons learned	Tue 18/05/10	Mon 12/07/10	75	RL,ETL,PD,PM	
77	Produce final evaluation report	Tue 13/07/10	Mon 16/08/10	76	RL,ETL,PD,PM	
78	WP14 Awareness and dissemination	Tue 06/01/09	Thu 30/09/10			
79	Continue to disseminate via the project website and blog	Tue 06/01/09	Thu 30/09/10	20	ALL	
80	Publish in newsletters and journals	Tue 06/01/09	Thu 30/09/10	79SS	ALL	
81	Present short communications and workshops at conferences	Tue 06/01/09	Thu 30/09/10	79SS	ALL	
82	WP15 Reporting	Fri 27/02/09	Tue 28/09/10			
83	Finalise and submit yearly progress reports (Year1)	Fri 28/08/09	Tue 29/09/09		PM,PD	
84	Finalise and submit yearly progress reports 2 (Final)	Fri 27/08/10	Tue 28/09/10		PM,PD	
85	Finalise and submit half yearly progress reports 1	Fri 27/02/09	Tue 31/03/09		PM,PD	
86	Finalise and submit half yearly progress reports 2	Fri 26/02/10	Tue 30/03/10		PM,PD	

Project: work_planv6.1
Date: Fri 25/07/08

Task



Milestone



External Tasks



Split



Summary



External Milestone



Progress

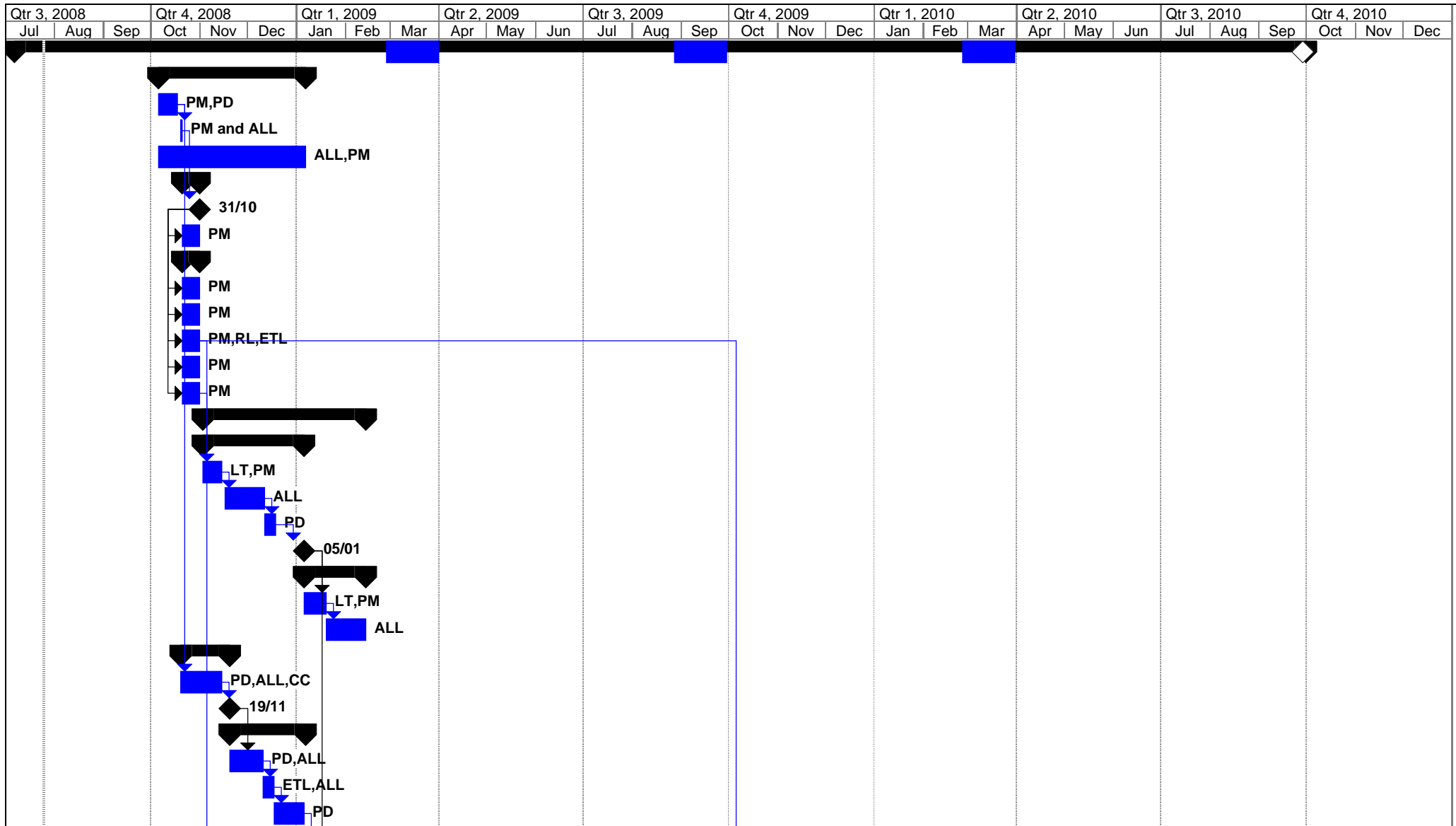


Project Summary

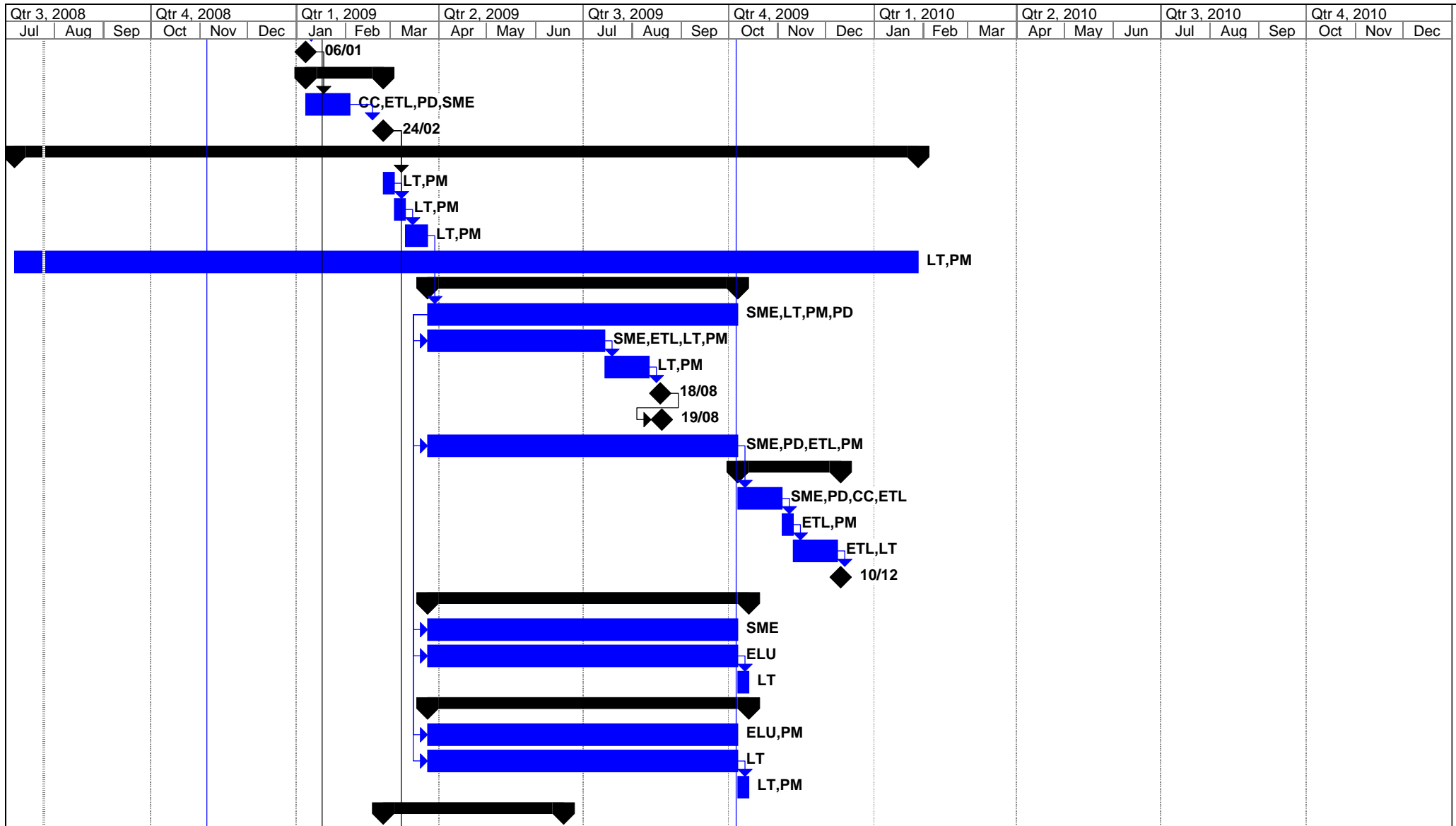


Deadline

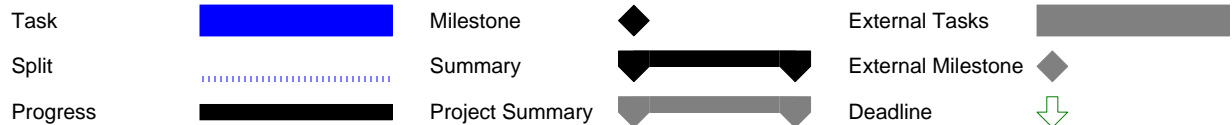


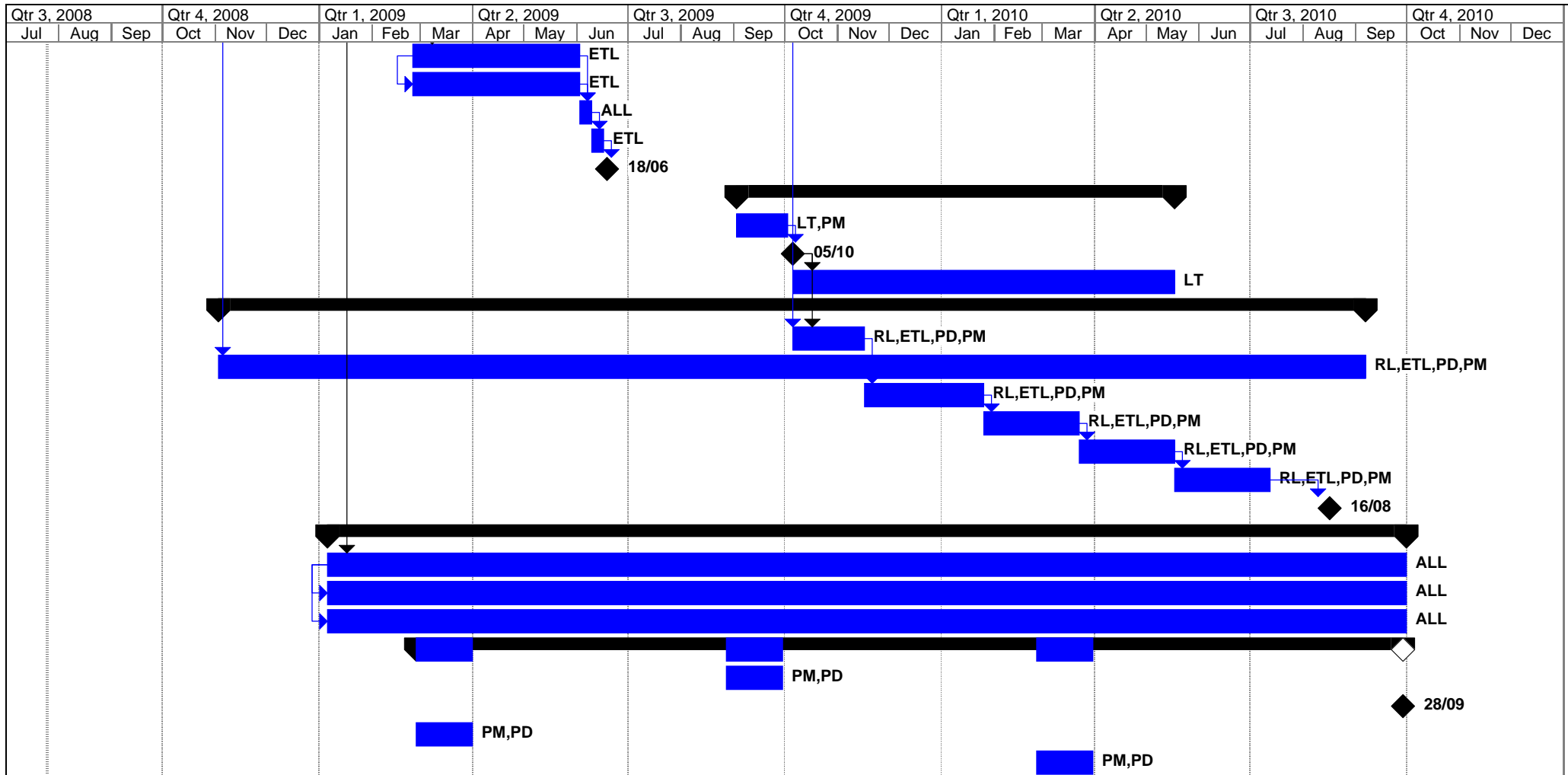


Project: work_planv6.1 Date: Fri 25/07/08	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	



Project: work_planv6.1
Date: Fri 25/07/08





Project: work_planv6.1
Date: Fri 25/07/08

Task		Milestone		External Tasks	
Split		Summary		External Milestone	
Progress		Project Summary		Deadline	

CURRICULUM VITAE

Sean Robert Hilton MD FRCGP

d.o.b. 31/10/49

Nationality: UK National. Born Weymouth, Dorset.

Deputy Principal,

Professor of General Practice and Primary Care

St. George's, University of London, Cranmer Terrace, London SW17 0RE

Email: shilton@sgul.ac.uk

Education and Qualifications.

Weymouth Grammar School, Dorset 1961-69

St. George's Hospital Medical School, University of London
1969-74

MB.BS (London) 1974 DRCOG 1977

MRCGP 1979 FRCGP 1990

MD 1991

MILT 2001 FHEA 2007

FFEAC 2007

Awards

Leverhulme Trust Fellowship 2002-3

Royal College of General Practitioners *William Pickles Lecturer* 2007

Appointments Held.

2007-8

Acting Principal, St. George's, University of London

2004-7

Vice-Principal (Teaching and Learning)

2003-present

Non-executive director, St. George's Healthcare Trust

1979-present.

Principal in General Practice, Kingston upon Thames, Surrey.

Selected Recent Publications

Hilton S Education and the changing face of medical professionalism: from priest to mountain guide? *William Pickles Lecture* 2007. British Journal of General Practice (2008) **58**:353-361

Hilton S and Southgate LA. Professionalism in Medical Education. Teaching and Teacher Education (2007) **23**:265-279

Bremner SA, Carey IM, deWilde S, Richards N, Maier WC, **Hilton S**, Strachan DP and Cook DG. Vaccinations, infections and antibacterials in the first grass pollen season of life and risk of later hay fever. Clinical and Experimental Allergy (2007) **37**: 512-517

Slotnick HB and **Hilton S** Proto-professionalism and the dissecting laboratory. Clinical Anatomy (2006) **19(5)**:429-436

Bremner SA, Carey IM, deWilde S, Richards N, Maier W, **Hilton S** et al. Timing of routine immunisation and subsequent hay fever risk. Arch Dis Childhood (2005) **90**:567-73

Hilton S and Slotnick H. Proto-professionalism: how professionalisation occurs across the continuum of medical education. Medical Education (2005) **39**:58-65

Hilton S Changing patterns in general practice. J Health Serv Res Policy (2005) **10(1)** 1-3

Perkins-Porras, L Cappuccio FP, Rink E, **Hilton S**, McKay C, Steptoe A. Does the effect of behavioural counseling on fruit and vegetable intake vary with stage of readiness to change? Preventive Medicine (2005) **40**:314-320

de Lusignan S, Chan T, Stevens P, O'donoghue D, Hague N, Dzregah B, Van VJ, Walker M, **Hilton S**. Identifying patients with chronic kidney disease from general practice computer records. Fam Pract 2005; 22:234-241.

Hilton S. Medical professionalism: how can we encourage it in our students? Clinical Teacher (2004) **1(2)**: 59-64

Hilton S and Lewis K. Opening doors to medicine (Editorial). British Medical Journal (2004) **328**:1508-1509

CURRICULUM VITAE

Name Terence Alan POULTON
Current Roles Associate Dean for e-Learning and Educational Technology
Head of the eLearning unit,
Reader in Medical Education
St. George's, University of London (SGUL)

Academic and Professional Qualifications

1969 B Sc (Hons) Zoology University College, London
1980 Ph D (Pathology, Immunology Thesis: Immune complexes

Recent Professional Experience

- 2005 to date Reader in Medical Education, Associate Dean for e-Learning
- 1990 - 2004 Senior Lecturer in Immunology, St George's Hospital Med. School
- 1985 - 1990 Lecturer in Immunology, University of Dundee

Current and Recent Responsibilities

- Head of the eLearning Unit, a rapidly growing unit (currently 16 staff) in the Department of Medical Education at SGUL, and responsible for both the delivery of e-learning, and all R&D.
- Member of curriculum development and steering groups of all new curricula at St Georges since 1996, including the first Graduate Entry Programme open to graduates of all disciplines. Responsible for the development of the scenario based 'learning week' for the MB BS medical curriculum, and the case-based-learning Paramedic Foundation degree at SGUL, a joint venture with Kingston University
- Responsible for all educational technology and e-Learning learning initiatives with our institutional partners in Australia, Brunei, Ireland, Italy, and all EC partners within eVIP (see below).

Research and Development: Grants

Applicant and Project Director for 11 grants (out of 12 submitted) since late 2004. Relevant grants:

ReVIP 2008

ReVIP, funded by the JISC, is exploring the repurposing technical issues arising from sharing content between different VP players and systems in order to smooth the way for the pedagogical, language, and cultural changes needed to successfully transfer and implement a VP from one country to another.

PREVIEW 2007

£200,000 of funding provided by the JISC under the Users and Innovations programme, in partnership with Coventry University. PREVIEW is exploring the use of Virtual Patients in Second Life, focusing on the SGUL Paramedic Foundation Degree, which had lost its on-site collaborative discussion of the scenarios in its case-based learning.

eViP 2007

€1.8 million project led by SGUL, funded by the European Union over three years under the eContentPlus programme. It aims to create a bank of repurposed and enriched multicultural virtual patient cases drawn from the 8 major institutions in VP development across Europe.

Publications

35 publications in peer-reviewed journals (mainly in Immunology, until a career change to Medical Education and e-Learning in 2003). Approximately 20 peer-reviewed or invited presentations in e-Learning at national and international conferences since 2004.

Miss Trupti Bakrania
e-Learning Manager, St. George's, University of London

Current Role and Responsibilities:

Delivery:

Trupti is responsible for the institutional virtual learning environment (Moodle) and associated learning materials as part of St George's Learning and Teaching strategy. To continue the development of online teaching material to support courses in the Faculty of Medicine and Biomedical Sciences and monitor and control the quality assurance of these. Also to disseminate good e-practice at St George's.

Projects :

ReVip

Trupti is responsible for the resource enrichment part of this JISC funded project which aims to repurpose existing virtual patients from German to English. The cases will be delivered to the 3rd year MBBS students on their paediatric attachment. This is a 12month project and is due to end in February 2009.

eViP

An international project funded by the EC under the eContent^{plus} programme. This project aims to create a European bank of virtual patient cases for multi-cultural, inter-professional use and multi-lingual access, with nine partner institutions across the EU. Trupti is a member of the SGUL project team for this project.

ReHASH: Repurposing Existing Health Assets to SHare

Another JISC funded project, which looked at existing healthcare recourses and repurposing them to other educational levels. This project has now come to an end but is still being disseminated across schools and colleges through our e-learning and widening participation unit.

Education and Qualifications:

Sep '01 – May '05	Brunel University 2:2 (Hons) BSc Medical Biochemistry (sandwich course)
Aug '03 – Aug '04	Brunel University Diploma in Professional Development (Distinction)

Past Employment:

Jun '05 – Oct '06	Learning Technologist, (REHASH project) St George's University London
Aug '03– Aug '04	Courseware Developer, St George's University of London

Research Interests:

E-learning, medical education, virtual patients, re-usable learning objects, virtual learning environments, personalised learning, web 2.0, m-learning, Progress testing.

Publications and Poster Presentations:

Bakrania, T., Somasunderam, A., Ramluchum, N., Atkinson, A., Poulton, T. (2008) The case for Building a Medical School e-Infrastructure Around a 'Free' VLE, *Ozzawa conference*, Melbourne Australia

Bala, C., Bakrania, T., Habib, R., Somasunderam, A., Poulton, T., (2005 and 2006, 2007) REHASH (*poster*), *Association for Medical Education in Europe*, Amsterdam and Italy.

Co-authored an article, Project focus: REHASH, *Higher Education Academy*, 01.11 Summer 2006.

BRIEF CURRICULUM VITAE

Professor Dame Lesley Southgate DBE DSc FRCP FRCGP FMedSci FAcad Med Ed
lesley.southgate@sgul.ac.uk

Degrees, etc (subject, class, university and date) and honours

- MB ChB, Liverpool University Medical School, 1967
- M Clin Sci., University of Western Ontario, 1980
- DSc (Hon) University of Exeter. In recognition of several years of work preparing for the establishment of the Peninsula Medical School 2002
- ScD and Distinguished International Professor. Medical Academy of St Petersburg. Russia 2002
- DSc (Hon) University of Keele 2003
- Honorary Fellow Royal Society of Medicine 2006

Posts held (with dates)

- Principal in General Practice 1971-2000
- 2004--: Professor of Medical Education St Georges Hospital Medical School London
- 1995 to 2004: Professor of Primary Care and Medical Education, University College London.
- 1992-1995: Professor of General Practice, The Medical Colleges of St. Bart's and The London Hospitals.
- 1990-1995: Head of Department, The Medical Colleges of St. Bart's and The London Hospitals.
- 1985-1990: Senior Lecturer/Hon Consultant, The Medical Colleges of St. Bart's and The London Hospitals.
- 1979-1982: Lecturer in General Practice, The Medical Colleges of St. Bart's and The London Hospitals.
- 1978-1979: WK Kellogg Foundation Fellow, Department of Family Medicine, University of Western Ontario, Canada.
- 1971-1978 Principal in general practice Hoddesdon Herts

Current roles and projects

- President of the Association for the Study of Medical Education (ASME) 2006-
- Chair Transition Council Academy of Medical Educators 2006-7 Now elected Council member
- Member Modernising Medical Careers team Sept 2004- 7
- Member Health Care Assessment and Training; an academic group conducting QA of assessment of the foundation years for postgraduate training and advising Royal Colleges, Deaneries and NCAS 2005-
- Evaluator: ATOME project (Leonardo Programme EU) for assessment of Occupational Physicians 2006-
- Chairman and leader: recertification technical group RCGP which will develop the specification for evidence for recertification for British GPs 2007-
- Member of the newly established MOH group Modernising scientific careers. Leader of the work on assessment programmes for health care scientists 2008-
- Leader project team working with Royal Colleges of Surgeons in Ireland to establish the model for external QA for the Medical School. Follow up visit to Dublin and Bahrain 2008-9
- Member European Advisory Group. National Board of Medical Examiners 2007-

Recent roles and projects

- President Royal College of General Practitioners (2000-2003)
- Vice Chairman Academy of Medical Royal Colleges (June 2002-3)
- Leader, General Medical Council Development Programme for Performance Procedures (1996 to 2004) Chair Performance Assessment Implementation Group
- Member vCJD clinical incidents panel (to 2004)
- Member PMETB, 2003-2006 Chair of Assessment Committee
- Chairman Refugee Health Professionals Steering group (DH) 2002-6
- Leader project on devising a women's sexual health curriculum for St Petersburg Russia 2002-5
- Chair Three Royal Colleges Examination Board for Diploma in Prison Medicine 2000-04

MEMBERSHIP OF BOARDS, COMMITTEES, WORKING PARTIES AND TASK FORCES

During my 33 years in general practice and academic life I have been a member of numerous committees and working parties, some more effective and worthwhile than others. But during the last 15 years I have gained considerable experience of health service management at authority level. The list below comprises those past activities that I consider to be relevant to my professional development and where I think I made a significant contribution.

.Local: North and East London

- Local Medical Committee City and East London
- Member City & East London Family Practitioner Committee
- Non-Executive Member East London and City Health Authority until August 1995
- Non-Executive Member City and Hackney Community Trust until January 1999*
- Governors advisory committee Holloway prison 200-2004

London University

- Special Advisory Committee for General Practice
- Assessment Working Group for Medical Education

Barts Medical College until 1 September 1995

- Member of College Council
- Member of Merger and Tomlinson strategy group
- Curriculum Management Group
- Chairman, Phase II of the Curriculum
- Chairman, Working Group on Assess

University College London 1995-2004

- Member of the Curriculum Committee
- Member of the Teaching and Assessment Quality Assurance Committee
- Chairman curriculum committee for final year (new curriculum)
- Chairman Special Study Modules (new curriculum)

Regional

- Regional Research Committee
- Trainer Selection Committees. NETHRA
- Regional Advisory Committee in General Practice

RCGP

- Member of College Council to 2000
- Member of Heads of Assessments Group; *leading on evaluation of RCGP assessment methods*
- Chairman Inner city Task Force
- Chief examiner 1996- 9
- President 2000-200
- Elected Council member: Chair recertification technical group

National

- Public Health Laboratory Service Board
- National Advisor, Sick Doctors Scheme
- Minister for Health's Support Force for Primary Care. Adviser to Dr Brian Mawhinney (while Minister of Health)
- London Implementation Group and its successors (Primary Health Care Forum)
- Member of the steering group for the education and training for doctors working in prisons. Home Office
- Consultant Adviser in General Practice to the Chief Medical Officer
- Member CMO's expert working group on screening for genital chlamydia infections
- Member of CMO's Communicable Disease Strategy Group
- Member vCJD clinical incidents panel
- Chairman AoMRC Postgraduate Education Committee
- Chairman Refugee Health Professional Steering group (DH)
- Chairman PMETB Steering Group sub-group on assessment (DH)*
- Vice-chairman Professional and Linguistics Assessment Board (PLAB) and examiner GMC
- Chairman Performance Procedures Implementation Group (GMC)
- Chairman Education Research Committee (ASME) and Council member.
- Member Medicines Honours Committee; Chaired by Sir Richard Mottram to 2006.

Over 40 publications in journals and various books

Recent Presentations.

I have presented at every AMEE, Ottawa, and AAMC meeting every year for the past 10 years. I am frequently a keynote speaker at international conferences on medical education. Since being at St Georges I always present myself as Prof of Medical Education here, irrespective of my other roles in UK medical education. This year so far, (2008) I have been an invited keynote speaker at:

- Inaugural meeting of the Irish Medical Education Association: Dublin
- Healthy Working Lives conference. European conference. Glasgow
- Annual meeting for the Board. National Board of Medical Examiners. Philadelphia
- **See next section re Hubbard Award**
- Medbiquitous Conference. Johns Hopkins. Baltimore

PRESS RELEASE:

PROFESSOR DAME LESLEY SOUTHGATE SELECTED BY NBME AS RECIPIENT OF 2008 JOHN P. HUBBARD AWARD

Steven Roy Malikowski, PhD

Flat 17 Kendra Grove
2 Kendra Hall Road
South Croydon, CR2 6DT England

020-8686-1161
<http://malikowski.org>
smalikow@sgul.ac.uk

eLearning Lead St. George's, University of London, Apr 2008 to Present

- Identify learning needs within St. George's that can be addressed with technology
- Implement and evaluate eLearning initiatives

Lecturer St. Cloud State University: St. Cloud, Minnesota, Aug 2004 to Apr 2008

- Manage the Statistical Consulting and Research Support workgroup
- Taught classes describing teaching methods, technology, or both

Learning Technologist PLATO Learning: Bloomington, Minnesota, May 2004 to Jul 2004

- Wrote the design documents to be used in the development of computer based instruction

Learning Technologist Walden University: Minneapolis, Minnesota, Aug 1999 to Sep 2003

- Assisted lecturers in developing distance education classes, using Blackboard
- Wrote Faculty Design Manual, which describes the process of creating an online class

Lecturer Walden University School of Education: Minneapolis, Minnesota, Dec 2002 to May 2003

- Part-time work completed while working full-time at Walden University
- Taught online postgraduate classes, describing use of technology for learning

Learning Technologist Center for Excellence in Education at IU: Bloomington, Indiana, Jan 1996 to Aug 1999

- Designed & presented workshops about Web-based distance learning
- Advised corporate, college, and K-12 clients on how to use technology for learning

Lecturer Minnesota Riverland Technical College: Austin, Minnesota, Nov 1994 to Dec 1995

- Taught classes describing the Internet, creating Web-pages, and multimedia
- Coordinated content development for an Internet-based community network

Publications and Presentations

- Published 5 articles in peer reviewed journals
- Published 3 articles in other journals
- Presented at 13 conferences

Education

Doctor of Philosophy in Education, Emphasis: Instructional Systems Technology

- Indiana University, Bloomington, Indiana
- Minor: Library Science
- Graduation: Aug 2004
- Grade Average: 3.7 on a 4.0 scale

Master of Education, Emphasis: Curriculum and Instructional Systems

- University of Minnesota, Minneapolis, Minnesota
- Graduation: August 1998
- Grade Average: 3.8 on a 4.0 scale

Bachelor of Arts in English

- St. Cloud State University, St. Cloud, Minnesota
- Graduation: March 1990
- Grade Average: 3.4 on a 4.0 scale

Miss Emily Conradi
e-Projects Manager, St. George's, University of London

Current e-Learning Projects

PREVIEW

A JISC-funded project to develop virtual patient scenarios for distance learning healthcare students within the virtual world Second Life. The project aims to evaluate the use of virtual worlds for collaboration and problem-based learning. Emily was the acting project manager for this project and is now the SGUL Institutional lead.

VP Workshops and the Virtual Patient Design and Development Course

Emily leads the development of virtual patient development within St George's University of London. This involves training staff on the VP process model and supporting technical delivery through workshops, and delivering a 12-week RCP accredited distance learning course.

eViP

An international project funded by the EC under the eContent^{plus} programme. This project aims to create a European bank of virtual patient cases for multi-cultural, inter-professional use and multi-lingual access, with nine partner institutions across the EU. Emily is a member of the SGUL project team for this project.

Education and Qualifications

May 2007	PRINCE2 Foundation and Practitioner
Oct '04 – Sep '05	City University, London MSc (Distinction) Electronic Publishing
Sep '00 – Jun '03	Nottingham University 2:1 (Hons) BSc Biology

Past Employment

May '06– Oct '06	Learning Technologist, St George's University London
Sep '05 – May '06	Multimedia Production Assistant, Pearson Education
May '05 – Sep '05	Assistant Editor, Shift Media
Jul '04 – Oct '04	Assistant Editor, Doctors.net.uk

Research Interests

E-learning, medical education, virtual patients in teaching and assessment, re-usable learning objects, virtual learning environments, personalised learning, web 2.0, m-learning.

Papers and Presentations

Conradi, E., August 2007, Presentation to the Association for Medical Education Europe: 'How can you successfully create and use a virtual patient?', Trondheim, Norway.

Conradi, E., Poulton, T. & Round, J. (2007) Teaching Decision-Making Skills through Virtual Scenarios, *Proceedings of the IASTED Conference*, Beijing, 8-10 October 2007, China, CATE.

Round, J., Conradi, E., Poulton, T., & Somasunderam, A. (2007) A Workable Model for Virtual Patient Design, *Proceedings of the 2007 SOLSTICE Conference*, Ormskirk, 11 May 2007, UK, Edge Hill University.

Conradi, E. July 2007. Presentation to the International Federation of Medical Students Association, 'Web 2.0 Technologies within Medical Education', Kent University, UK.

Rachel H. Ellaway

Qualifications:

Ph.D. University of Edinburgh, UK

BSc. (Hons) Visual Studies and Physical Sciences, Brookes University, Oxford, UK

Positions Held

- Assistant Dean and Associate Professor Education Informatics, Northern Ontario School of Medicine, Sudbury, Ontario
- Chair of the Association of Faculties of Medicine of Canada's (AFMC) Medical Informatics Group
- e-Learning Manager, The University of Edinburgh, UK
- Special Projects Manager, The University of Edinburgh, UK
- Subject Specialist Advisor for the UK Higher Education Academy Subject Centre for Medicine, Dentistry and Veterinary Medicine

Experience

14 years of education technology development

20 years of multimedia and graphic design

10 years of technology research and evaluation

8 years of academic and research leadership

Major Achievements

- Introduction and implementation of e-Learning to Medicine and Veterinary Medicine at the University of Edinburgh.
- Securing and conducting educational technology research and development projects totalling ~£1M for the University of Edinburgh over 7 years.
- Principal Architect of the MedBiquitous Virtual Patient Data Standard.
- Principal Architect of the OpenLabyrinth educational games engine.
- Securing \$2M research funding for Health Services Virtual Organization, 2008
- 6 chapters in books and 41 papers in refereed journals as well as 81 papers in refereed conference proceedings and 27 other non-peer reviewed publications (invited papers, public reports etc) since 2000.

Honours and Awards:

- Queens Anniversary Prize (awarded in person) for Excellence in Higher and Further Education 2005
- MedBiquitous Innovation Award 2007

Memberships:

- Member of MedBiquitous Executive,
- Member of the UK Council for Health Informatics Professions (UKCHIP),
- Board Member of the journal "Medical Teacher",
- Founding Chair of the Scottish Medical Education Informatics Group,
- Member of the Canadian Association for Medical Education (CAME),
- Member of the American Medical Informatics Association (AMIA)

July 2008

Ms Lisa Gray
JISC,
Northavon House,
Coldharbour Lane,
Bristol,
BS16 1QD

Cranmer Terrace
London SW17 0RE
Switchboard
+44 (0)20 8672 9944
www.sgul.ac.uk

Dear Ms Gray

Re Generation 4 (G4): application to JISC 08/08 Transforming Curriculum Delivery Through Technology

St George's fully supports this bid. As an institution we are committed to Problem Based Learning as the central learning style for the majority of our students. We are increasingly looking to enhance student collaborative experiences, and the interactive virtual patient that our e Learning Unit has developed and trialled, has already demonstrated that it can provide a more engaging and personalised experience for our students.

Curriculum developments such as this are significant elements in our Learning and Teaching Strategy, and we are committed to sustaining the outputs of this transformation, and embedding them in our other courses, wherever possible.

With best wishes,

Yours sincerely,



Professor Sean Hilton
Deputy Principal