Supplementing material

Appendix 1

List of job roles and qualifications and scores assigned to the members in relation to their job role(s) and years of experience.

Job Role	0-1yr	1-2yr	2-5yr	5-10yr	10-20yr	20yr plus
Administrator	0	1	2	3	4	10
Clinical Officer	0	2	4	8	15	30
Clinician	0	2	4	10	20	35
Communications or Media Manager	0	1	2	8	15	20
Community Engagement Officer	0	1	2	4	8	15
Data Entry Clerk	0	1	2	4	8	10
Data Manager	0	2	6	15	25	25
Ethics Committee/IRB member	0	1	4	10	20	30
Field Worker	0	1	4	10	20	20
Investigator	0	2	4	8	15	35
Laboratory Manager	0	2	3	5	10	25
Laboratory Staff	0	1	4	10	20	15
Monitor	0	2	3	5	12	15
Pharmacist	0	1	4	10	20	30
Project Manager	0	2	4	8	12	30
Public Health Officer	0	1	4	10	20	30
Quality Control Monitor	0	1	2	4	10	15
Quality Control Officer	0	1	3	8	15	20
Regulatory/ Quality Officer	0	1	3	8	15	20
Research Assistant	0	1	2	4	6	15
Research Coordinator	0	1	2	6	10	30
Research Midwife	0	1	3	6	15	30
Research Nurse	0	2	4	8	15	30
Senior Investigator	0	5	10	20	30	50
Social Scientist	0	1	3	5	8	20
Statistician	0	2	4	8	15	25
Student	0	1	2	3	1	1
Study Manager	0	1	3	5	10	25

Main Qualification	Points
Doctorate (DPhil/PhD)	1000
MD	800
Masters (MSc/MA)	600
Degree (BSc/BA)	400
Diploma	200

Appendix 2

Complete list of research competencies the members of the Professional Development Scheme are asked to self-assess.

	Professional Skills
	Professional Skills
	Cognitive skills
1	Is required to identify errors and inaccuracies within research documents and datasets
2	Is required to identify problems and find solutions within study design and operation
3	Able to break down information into manageable parts and systematically analyse it
4	Interprets and summarises complex issues around study or disease area (whether written or discussions)
	Strategic leadership
5	Establishes and maintains relationships with a strategic network of scientists and collaborators to facilitate research and building capacity
6	Manages a team(s) and oversees multiple projects
7	Works in several networks engaged with large consortium level research projects
8	Member of international advisory boards and committees
9	Undertakes process improvement and drives change within role and organisation
10	Plans and secures funding and income at an institutional level
11	Develops research agendas, policies and strategic priorities within organisation
12	Delivers leadership and strategic direction within an organisation
13	Shares research approaches, outputs and knowledge with others at a senior level through external committee and advisory board membership
	Interpersonal Skills
14	Works effectively in one or more teams to deliver research objectives
15	Able to listen effectively to others and facilitate open communication within a team/organisation
16	Able to encourage respect and diplomacy within a team/organisation
17	Able to mediate within a team to resolve conflicts
18	Displays sensitivity dealing with personal information/issues
19	Able to express the views of the team and other colleagues (advocacy)
20	Demonstrates effective negotiation skills within team/organisation
21	Responsible for line management of one or more people
22	Manages study team
23	Manages the operations of one or more oversight committees such as DSMB or TSC
24	Responsible for communicating with funding consortia or network within which the study runs
25	Demonstrates effective networking skills, building alliances and strategic partnerships within team/organisation
26	Manages operational relationship with collaborators, sponsors or CRO
	Language and Communication
27	Translates documents or organises translations
28	Writes different types of research documents such as reports, protocols and SOPs

29	Presents to diverse groups such as peers, community or sponsoring organisation
30	Delivers effective presentations using oral and artistic skills
	Organisational Skills
31	Able to prioritise tasks and projects effectively
32	Able to undertake multiple tasks at the same time
33	Delivers milestones and meets deadlines
34	Plans and organises study meetings
	Record keeping
35	Completes accurate study logs and records
36	Maintains and updates study records and logs relating to any element of the study
37	Keeps records of study communications, sponsor and regulatory correspondence
38	Keeps study documents up to date
39	Designs systems for study filing and organisation of resources
	Computer and IT skills
40	Uses systems required for their role e.g. specimen tracking, randomisation software or recruitment tracking
41	Enters data onto data management system
42	Competent in using computers and IT systems
43	Troubleshoots IT problems
44	Responsible for maintaining digital systems for study tracking and document management
45	Designs, builds and refines databases or code
46	Uses complex data management or statistical programmes such as Epi Info/STATA/SPSS
47	Manages, configures and maintains the IT and data management systems infrastructure
48	Designs systems for study tracking and information organisation
	Work Ethics
49	Works successfully in team and follows instruction
50	Works in situations where it is necessary to respond positively to change
51	Works independently with minimal supervision
52	Keeps up to date with knowledge in specialism, and is aware of new data, methods and findings
	Research Operations
	Data flow
	Creating and maintaining a database
53	Operates data management system
54	Operates data quality checking within data management system
55	Reviews, selects and implements appropriate data management systems
56	Designs and builds a data entry and management system for a study in line with data specifications and user requirements
57	Designs and coordinates system for safe and secure storage of all types of study data including after study end
58	Ensures the database supports an audit trail
59	Uses system for safe and secure storage of all types of study data including after study end
60	Audits databases to validate programming and quality checks

61	Selects, installs and maintains data dictionary
62	Responsible for designing and implementing a data sharing policy within an organisation or consortium
63	Operates a database level data quality checking system
64	Designs a database level data quality checking system
	Collecting accurate data
65	Enters adverse event data into database
66	Enters Case Report Forms (CRF) data into the validated database, keeping a log of discrepancies and unclear information
67	Tracks and checks data received from the site(s) prior to entry into central database, maintaining a log of incomplete or missing data
68	Manages data collection and insertion into CRF or other storage format, ensuring the CRF data is accurate and complete
69	Uses different data capture systems such as smart phones or other digital devices for electronic data capture
70	Designs and runs data validation checks for direct data entry
	Data management
71	Oversees the flow of trial data at all stages (acquisition, cleaning, storage and transfer)
72	Operates data query system raising and/or resolving queries
73	Designs and manages data query and resolution procedure systems
74	Operates data management system
75	Oversees quality of data management and data systems
76	Assists in defining data specifications and summaries, and data listings
77	Reconciles data transfers
	Clinical and laboratory operations
	Providing clinical care
78	Manages any medical emergency according to qualification
79	Takes blood and other study samples and measurements according to the protocol
80	Conducts study visits with participants according to the protocol
81	Conducts and records clinical assessments as required by the protocol
82	Diagnoses participants through review of medical history, analysis of vital signs, biological samples etc. and recommends relevant treatments
83	Conducts all study visits, assessment and clinical measurements according to the protocol
	Ensuring appropriate use of investigational medical products (IMPs)
84	Implements study product storage, keeps records and tracks use and returns
85	Ensures safe use and administration of all study interventions, other medications and medical procedures
86	Considers all safety issues around study and implements necessary documents or committees
87	Implements safety monitoring of any form of study intervention or procedure
88	Writes safety reports or summaries
89	Designs the handling, shipping and storage for all study products and interventions (e.g. drugs, vaccine)

90	Assesses potential risks of all pharmacological interventions and implements safeguards within prescribing with other products, dosage, participants' existing conditions
91	Responsible for assessing the risk of any study intervention or procedure
92	Writes the investigator brochure for an investigational medicinal product
	Handling biomedical products
93	Manages the log for the study intervention including tracking expiry dates and conditions
94	Labels, records and processes samples in the clinical setting according to the protocol and SOPs
95	Checks packaging and labelling of IMPs is acceptable
96	Manages the required systems for the safe storage, handling, labelling and tracking of study samples
97	Coordinates the movement of lab samples and associated data
98	Receives samples and ensures that the correct and full supportive information is provided including CRFs
99	Ensures processes are in place for import/export of IMPs or specimens in compliance with applicable legislation
100	Designs systems for the safe storage, handling, labelling and tracking of any biomedical products and samples
101	Writes SOPs relating to storage conditions and what to do when a value is outside of the specified range (e.g. temperature of storage room)
102	Ensures relevant samples are taken, resolves discrepancies and communicates results
	Performing laboratory assays
103	Performs routine laboratory assays
104	Designs routine laboratory assays
105	Conducts laboratory tests, and interprets and reports results
106	Establishes standardised assays and normal ranges
107	Oversees routine laboratory assays
108	Maintains laboratory equipment maintenance and servicing contracts
109	Monitors lab resources and maintains adequate level of supplies
110	Monitors laboratory fridges and freezers for study samples, ensuring power supply and temperature logs
111	Reports results to the study team including flagging abnormal findings
112	Writes laboratory SOPs and ensures protocol is followed
113	Provides technical laboratory-based advice to researchers in designing assays and experiments
	Interaction with public and study participants
	Engaging with the community
114	Takes part in delivering a community engagement plan
115	Takes part in public promotion of research through giving talks or visiting community groups such as schools or local groups
116	Encourages contributions and involvement of study participants/patients, key opinion leaders and community elders or chiefs in all areas of research activity
117	Plans a community engagement policy for a study, research centre or programme
118	Delivers community, or one to one, meetings with community leaders to introduce a study and answer questions

119	Conducts community perception appraisal activities such as interviews and focus group discussions
120	Designs the approach of introducing a study within a healthcare setting or community
121	Designs and coordinates community sensitisation materials or activities (community meetings, educational plans, advertising, leaflets, letters)
122	Sets up and manages a Community Advisory Board
123	Sets up a network within the community to facilitate ongoing engagement
	Enrolling and retaining participants
124	Takes part in study recruitment process
125	Coordinates participant visit schedules
126	Takes informed consent from participants
127	Designs informed consent process
128	Applies inclusion / exclusion criteria to assess study participants
129	Randomises participants into the trial
130	Tracks recruitment figures and reports to relevant groups when required
131	Assists in follow-up of individuals to ensure trial data is complete and reports reasons for participants withdrawals
	Supporting and advising throughout informed consent process
132	Responsible for explaining the details of the study to the participants to ensure they understand what the study involves according to the information sheet and consent form
133	Ensures that the informed consent is an ongoing process by continuing to answer participants' questions and to support them throughout the trial
134	Ensures participants have full understanding of visit schedules
135	Ensures participants have full understanding of study procedures and the intervention
136	Explains to participants how they will be compensated and any payments they will receive
137	Designs a consent process and consent materials for children, young people and vulnerable adults or their legal representatives
138	Develops strategies to mitigate any risks that occur during informed consent process
139	Advises participants when to seek healthcare advice at study sites or non-study sites, if necessary
140	Keeps participants informed of any relevant new information that might affect their decision to remain in the study
141	Designs process when legal representative is giving consent (rather than participant)
	Ethics, Quality & Risk Management
	Safeguards
	Ethics and Human Subject Protection
142	Designs and implements specific ethical approaches and safeguards in specialist setting such as vulnerable populations or emergency research during disease outbreaks
143	Plans oversight and governance of the ethical requirements, compliance and approval processes for studies
144	Assesses the need for specific research studies and writes this justification into protocols
145	Ensures all required ethics and regulatory approvals are in place before study starts
146	Sets up processes and safeguards to ensure confidentiality and that participants rights are protected

147	Sets participant payment and compensation levels to ensure there is no inducement
	Risk and Safety Management
148	Reports to DSMB or study management committees on safety events or protocol violations
149	Coordinates a DSMB or safety review committee
150	Writes the charter for a DSMB or safety review committee
151	Takes part in a DSMB or safety review committee
152	Sets up Data Safety Monitoring Board (DSMB) or safety review committee
153	Writes the safety monitoring and report sections of protocols
154	Coordinates unblinding and other emergency procedures when necessary
155	Responsible for risk mitigation strategies, associated action plan and issue resolution for studies
	Determining Liability and Insurance Needs
156	Determines when insurance is required for a research study
157	Secures appropriate insurance/liability for a study
158	Reports liability/insurance claims
	Quality Assurance
	Good Clinical practices
159	Trained in GCP, GCLP and/or GMP
160	Identifies the requirements for human subject protection under relevant national and international regulations
161	Ensures relevant GCP, GCLP and/or GPP training is in place
162	Ensures the studies are run in compliance with the guidelines of GCP of the International Conference on Harmonization
	Working as per quality management systems (QMS)
163	Maintains controlled reading and distribution lists for SOPs
164	Ensures up-to-date SOPs are used at sites and coordinates review of these documents
165	Ensures studies follow the protocol day-to-day and reports concerns if protocol breached
166	Trains staff to undertake data validation and quality checks
167	Ensures studies have a quality management plan
	Controlling quality of research (monitoring)
168	Ensures data and documentation is complete, up-to-date, and appropriately filed and ready for inspection if required
169	Conducts central monitoring
170	Delivers quality monitoring or audit to assure the quality of conduct of the study, and integrity, consistency, timeliness and accuracy
171	Reviews monitoring reports and implements corrective action
172	Identifies errors and helps individuals resolve their issues in different ways depending on the situation
173	Conducts study visit activities and on-site monitoring; ensures accuracy and completeness of source documents, case report forms (CRFs), trial master file and other study related documents
174	Incorporates quality management into all research studies within organisation
175	Develops and coordinates risk-based monitoring strategies, ensuring consistency across study site(s)
	Regulations and governance

	Securing or maintaining approvals
176	Coordinates/writes submission for ethics or regulatory approval
177	Takes part in application process for ethical/regulatory approvals
178	Submits to trial registry
179	Writes and submits protocol amendments to relevant authorities
180	Writes and submits safety updates and annual reports
181	Identifies other necessary approvals e.g. local R&D department, marketing applications, local health authority
	Securing or maintaining contracts
182	Reads and reviews contracts to ensure they are comprehensive
183	Ensures contracts are signed, renewed and updated
184	Manages contracts including, but not limited to: investigator contracts, sponsor/site agreement, site agreements, agreement with contract research organisations (CRO) or subcontractors, data access and transfer agreements in compliance with confidentiality requirements, compensation in the event of harm
185	Writes contracts with collaborators, funders and other sites
	Governance and organisational context
186	Understands the roles and responsibilities of members of the study team
187	Ensures study complies with regulatory requirements, local policies, and applicable international guidelines
188	Develops governance systems and documentation within the organisation
189	Contributes to governance systems and documentation within the organisation and or specific studies
	Research regulations
190	Works with regulatory authorities e.g. during audits or when submitting reports
191	Writes and reviews research study regulatory documents
192	Ensures relevant guidelines e.g. database, labelling, reporting of AEs and SUSARS, protocol amendments are followed
193	Responsible for the study meeting regulatory requirements, local policies, and applicable international guidelines
194	Responsible for identifying and mitigating fraud and misconduct in research
195	Keeps up-to-date with relevant international, national, and local laws, policies and guidelines relating to research (including ethical ones)
196	Understands and applies the laws relating to the use of animals in research, if applicable
197	Develops processes necessary for approval of a drug or other investigational medical product (e.g. diagnostic, device, gene therapy) through the different stages in a trial
	Study & site(s) management
	Oversight
	Initiating study
198	Plans and coordinates study initiation process (initial requirements in infrastructure and facilities, supplies, staff, training)
199	Recruits study teams, quality control teams and oversight committees such as trial steering committee
200	Reviews protocols and conducts feasibility and risk assessments
201	Tests, documents and pilots risk and mitigation strategies, such as code breaking procedure in emergencies

202	Conducts site and investigator selection: identifies, visits and recruits suitable sites, identifies training and technical assistance needs
203	Develops and writes study report and analysis plan
204	Contributes to study report and analysis plan
	End of study
205	Performs study close-out visits and audits
206	Maintains study documents archive inventory and makes arrangements for (selected) access to files after close-out
207	Plans, coordinates and maintains data and study document archive for specified time period
208	Sends notifications of closures: informs and submits relevant reports to official bodies (regulatory authorities, EC) and to other people involved with the study (investigators, institution, trial subjects)
209	Ensures unused trial supplies are accounted for and appropriate disposal of trial materials once research is completed
210	Ensures and oversees close-out activities in case of premature termination of trial
	Tracking study progress
211	Uses progress tracking to anticipate potential issues
212	Tracks progress of study using tracking tools or software, and measures progress against planned objectives and targets
213	Determines the project scope, milestones, budgets, timelines and tracks these appropriately
214	Ensures on time reporting of relevant milestones
215	Reviews status reports from other team members in relation to milestones
	Project management
216	Uses project management processes and tools
217	Creates work schedules and timelines and reviews associated reports
218	Coordinates or manages teams or CROs
219	Oversees specified processes within the trial e.g. recruitment, monitoring, follow-up
220	Oversees study and site management including managing multiple sites/laboratories and ensuring consistency
	Study communications
	Reporting
221	Reports appropriately when required within the team (e.g. on workload, logistics, status of project) and escalates issues or concerns appropriately
222	Writes suitable reports according to audience and presents information clearly
223	Understands and complies with specific and varying reporting requirements for diverse bodies (e.g. ethics boards, sponsors, funders, regulatory authorities as opposed to trial management team, steering committees and safety monitoring boards)
224	Responsible for the quality, coordination, medical and scientific accuracy and timeliness of relevant reports
	Liaising or acting as a link
225	Processes communications received and ensures a timely and complete response
226	Ensures that relevant documents are communicated with the team e.g. the correct version of protocol

227	Interacts with staff in other functional areas to ensure the highest level of collaboration across groups
228	Maintains regular, timely communications and interactions with appropriate study groups as required for role (e.g. communication with sponsor, sites, principal investigators, stakeholders, monitors) to ensure smooth and successful execution of study activities
229	Provides updates and circulates new information to team members
230	Acts as primary contact for authorities, media, CROs
	Facilitating or attending meetings
231	Takes minutes and ensures they are reviewed and signed by the individual in charge
232	Facilitates meeting ensuring agenda is kept to and decisions made
233	Participates and presents at meetings as required
234	Organises meetings/teleconferences e.g. ensures correct attendees, makes practical arrangements, prepares agendas
235	Chairs meetings
	Staff management
	Human resources
236	Ensures the work environment is safe for staff e.g. that laboratory equipment or infection control procedures are in place
237	Ensures that individuals are qualified for their role and receive appropriate training; holds CVs, up-to-date training records and logs of delegation
238	Trains the team to follow the protocol and SOPs
239	Recruits and selects team, plans and coordinates their training as required
	Creating or delivering training
240	Produces materials such as manuals or presentations for training on a specific topic e.g. the data management system (DMS) or participant flow
241	Delivers effective training for groups e.g. site training on study protocol/SOPs
242	Delivers effective On-the-Job (OJT) training or individual training
243	Determines the appropriate subject topic, assesses audience responsiveness to training, repeats and paraphrases source material (e.g. SOPs) in order to produce an effective training session
244	Develops a training curriculum and/or manages a training programme
	Supervising or mentoring
245	Supervises and coordinates the work of the team
246	Line-manages and conducts appraisals for staff
247	Evaluates and assigns work and/or delegates to others based on an individual's strengths and interests
248	Mentors team members and/or acts as technical advisor or expert
249	Supports team members in work-related or personal issues
250	Supervises and coordinates team including monitoring performance, developing their skills and capacity as needed
251	Competent in various styles of supervision and understands the principles of supervision/motivation techniques and their applications in the work environment
	Resources management
	Overseeing essential documents
252	Updates important documentation as required

253	Maintains security of documentation by controlling access and physically protecting it from elements (e.g. water)
254	Secures documents in a central location, filed in an organised manner and readily available for inspection
255	Collects and maintains essential study documentation e.g. up-to-date protocol, trial master file, site files, delegation logs, investigator's brochure, official approvals, CVs, important correspondence
	Logistics and facilities management
256	Ensures appropriate facilities for study and clean environment (including appropriate biological and chemical waste disposal)
257	Maintains materials and equipment inventory
258	Maintains a laboratory in running order (e.g. by preparing reagents, disposing of biological and chemical waste appropriately)
259	Maintains and calibrates assigned equipment
260	Coordinates, tracks and reorders the resources and supplies required for a study
261	Performs basic trouble-shooting and reports damages/required repairs
262	Plans logistics required for the trial materials, such as arranging shipments and accounting for materials
	Finances management
263	Maintains accurate accounts, synthesises financial information from multiple sources to create report and ensure up-to-date financial information is available and circulated
264	Manages expenses e.g. preparing invoices and work orders, cash float, travel expenses, participant reimbursements
265	Assists in budget negotiations and funding agreements
266	Operates within financial constraints and alerts relevant personnel to potential escalating costs
267	Manages budget of a study or department including creating financial reports and forecasts
268	Manages budget of research organisation or consortia including creating financial reports and forecasts
	Scientific Thinking
	Design & planning of research
	Health-related knowledge
269	Designs and writes protocols in area of expertise
270	Regularly asked to peer review papers or funding applications
271	Publishes widely in area of expertise
272	Provides expert health/medical science input into research design, protocol preparation or during the study conduct
273	Sets outcomes and endpoints for studies in area of expertise
274	Contributes to setting outcome and endpoint measures for studies in area of expertise
	Research methodology
275	Shares research methods and operational documents
276	Applies different statistical approaches in different study designs
277	Writes statistical section of protocol
278	Undertakes literature reviews to show gaps in knowledge and evidence in specific area of expertise
279	Designs research studies/trials appropriate to the question being asked

280	Develops cost effective risk- based strategies for running research studies in low-resource settings
	Developing a protocol
281	Member of a protocol development team
282	Writes draft or outline protocols for funding or institutional review and approval
283	Writes protocol according to standard requirements and appropriate to study type or setting
284	Coordinates and reviews study protocol including tracking inconsistencies, errors or omissions
285	Contributes to relevant sections of a protocol
	Attracting funding
286	Plans costings and resources for a study or a grant application
287	Writes and submits grant applications for a study
288	Contributes to writing of grant applications
289	Writes and submits grant applications for major research project or programme
	Protocol operationalization
	Developing study plans and documents
290	Designs participant flow process; visit schedules, appropriate documentation and time-points for sample taking
291	Coordinates/contributes to the writing of study documents, such as information leaflets for participants, consent forms
292	Designs practical communication plans to circulate information within study staff and to key stakeholders e.g. participants groups, DSMB, sponsors
293	Designs study processes related to ethics, such as community sensitisation plans, participant information leaflets, visit schedules and time points for sample taking, recruitment strategies and informed consent form
294	Designs overall operational plan for a study e.g. project management plan
	Developing the quality management system (QMS) and standard operating procedures (SOPs)
295	Coordinates drafting or writing of SOPs
296	Writes SOPs that are GCP and regulatory compliant
297	Contributes to drafting or writing of SOPs
298	Writes guidelines to ensure study procedures will be consistently applied and adhered to
299	Designs risk management and safety plans e.g. adverse event reporting systems, safety management plans
300	Develops and writes procedures to control compliance to the study protocol, study procedures and SOPs
301	Develops and writes procedures for quality assurance e.g. how to track participants' information, how to check the accuracy of collected data without breaking confidentiality rules
302	Develops quality management systems (QMS) for the whole study, and for specific sites, laboratories or pharmacies
303	Plans and translates the quality management system into pragmatic SOPs
	Developing the case report form(s) (CRF) and data management system (DMS)
304	Coordinates and/or contributes to the writing of CRFs or source documentation forms
305	Develops study questionnaires for participants

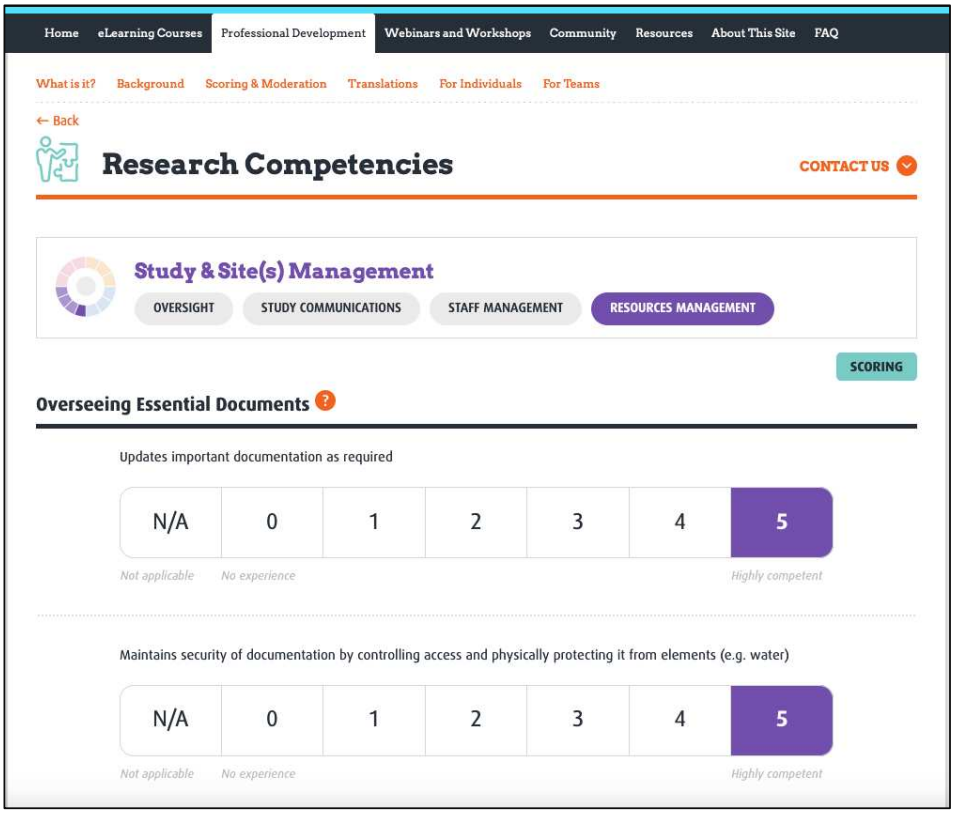
306	Identifies appropriate data management systems for a study
307	Designs data management plan for a study including the methods for monitoring and reporting safety data
308	Contributes to quality management systems (QMS) for the study as they apply to data processes, such as monitoring of safety data and checking database requirements
	Interpretation of study results
	Analysing data
309	Extracts data from study database and conducts data analyses using statistical software packages
310	Interprets efficacy and safety data from research studies and clinical trials
311	Identifies and establishes if conclusions based on the data analyses are valid
312	Performs statistical monitoring of data and interim analyses
313	Applies advanced statistical techniques such as modelling and simulation
	Disseminating research findings
314	Writes a final study report
315	Contributes to writing final study report
316	Writes and leads the submission of an article to a journal
317	Contributes to writing of journal article
318	Assists in the submitting of an article to a journal
319	Submits and presents a poster at a scientific meeting
320	Contributes to a poster at a scientific meeting
321	Writes and submits abstracts to scientific meeting
322	Presents an oral presentation at a scientific meeting
323	Writes, agrees and works to a publication policy or dissemination plan
324	Delivers a results communication and dissemination plan for specific study
325	Designs communication and dissemination plan for specific study

List of acronyms in Appendix 2 not already defined in the list above:

- AE (Adverse Event)
- CRF (Case Report Form)
- CRO (Contract Research Organisation)
- CV (Curriculum Vitae)
- DMS (Data Management System)
- DSMB (Data Safety Monitoring Board)
- EC (Ethics Committee)
- Epi Info (Epidemiological Information)
- GCLP (Good Clinical Laboratory Practice)
- GCP (Good Clinical Practice)
- GMP (Good Manufacturing Practice)
- GPP (Good Participatory Practice)
- IMP (Investigational Medical Product)
- IT (Information Technology)
- QMS (Quality Management System)
- R&D (Research and Development)
- SOP (Standard Operating Procedure)
- SPSS (Statistical Package for the Social Sciences)
- STATA (Statistics and Data)
- SUSAR (Suspected Unexpected Serious Adverse Reaction)
- TSC (Trial Steering Committee)

Appendix 3

Example of the Professional Development Scheme "Research competencies" webpage layout, showing the category, the sub-categories and the competencies with the 1 to 5 scoring system linked to it.



Appendix 4

The Professional Development Scheme 6-point Likert scale used to self-assess the competencies listed in the "Research Competencies" section.

Grade	Definition
N/A	Not applicable (e.g. if the competency is not useful for the role of the individual)
0	Task: No experience; never performed the task before Knowledge: No exposure; never heard of the topic before Skill: Unable to use skill
1	Task: Little experience, but received training Knowledge: Little exposure; but followed courses or read about the topic Skill: Use skill with difficulty and/or very rarely
2	Task: Some experience; already performed the task at least once Knowledge: Some exposure; already applied knowledge of topic in their job at least once Skill: Use skill inconsistently and occasionally
3	Task: Capable to perform task Knowledge: Knowledgeable; frequently apply knowledge of topic Skill: Use skill appropriately, but only occasionally
4	Task: Experienced; regularly perform the task in their job Knowledge: Highly knowledgeable; use, reflect, critically evaluate information related to the topic Skill: Use skill appropriately, in all relevant situations
5	Task: Highly experienced; able to train and guide others Knowledge: Expert knowledge; able to teach and assess others Skill: Use skill appropriately, consistently and confidently

Appendix 5

List of further professional activities included in the "Further Professional Development" section of the Professional Development Scheme and scores assigned to each activity.

Further professional activities	Points
Conference	
Attended a Conference	10
Presented at a Conference	40
Organised a Conference	50
Led a Conference	100
Journal Club	
Attended a Journal Club	5
Presented at a Journal Club	40
Organised a Journal Club	10
Led a Journal Club	10
Long Training Course (>2 days)	
Attended a Long Training Course	20
Presented at a Long Training Course	30
Organised a Long Training Course	40
Led a Long Training Course	50
Meeting	
Attended a Meeting	10
Presented at a Meeting	20
Organised a Meeting	30
Led a Meeting	40
Mentoring	
Undergraduate Mentoring	5
Masters Mentoring	10
DPhil/PhD Mentoring	15
Work-related Mentoring	15
Poster	
Attended a Poster presentation	5
Presented a Poster	20
Organised a Poster	30
Led a Poster	40
Seminar	
Attended a Seminar	4
Presented at a Seminar	40
Organised a Seminar	10
Led a Seminar	10
Short Training Course (0-2 days)	
Attended a Short Training Course	15
Presented at a Short Training Course	30
Organised a Short Training Course	20
Led a Short Training Course	25
Supervision	
Undergraduate Supervision	5
Masters Supervision	10
DPhil/PhD Supervision	15
Work-related Supervision	15
Workshop	
Attended a Workshop	10
Presented at a Workshop	20
Organised a Workshop	30
Led a Workshop	40

Appendix 6

Example of the visualisation of the Overall Team Dashboard and Overtime Skills Dashboard of the Professional Development Scheme.