**Supplementary Table 1.** *The final version of the 44-task competency survey*

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| **Domain** | **Task Competency** |
| Scientific Concepts & Research Design | * Research grant applications
 |
| * Completing a literature review to justify study background
 |
| * Developing study designs
 |
| * Developing study budgets
 |
| Ethical and Participant Safety Considerations | * Managing ethical and professional conflicts
 |
| * Managing clinical study fraud and misconduct
 |
| * Recognizing, reporting, and following-up on adverse events
 |
| * Institutional Review Board (IRB) preparation, submission, and modifications
 |
| * Institutional Review Board (IRB) reporting and termination
 |
| Investigational Products Development and Regulation | * Pharmacovigilance
 |
| * Investigational product use instruction
 |
| Clinical Trial Operations (GCPs) | * Monitoring compliance
 |
| * Resolving issues related to study protocols
 |
| * Clinical audits and inspections
 |
| * Preparing regulatory documents
 |
| * Tracking regulatory submissions
 |
| Study and Site Management | * Study protocol, feasibility, and initiation
 |
| * Completing essential documents
 |
| * Completing/managing study close-out
 |
| * Study monitoring according to protocol
 |
| * Administrative activities associated with clinical trials
 |
| * Educating research staff
 |
| * Managing the pre-award grant process
 |
| * Managing the post-award grant process
 |
| * Order and maintain equipment and supplies
 |
| * Collection, processing, and shipping of samples
 |
| * Complete the start-up process with study subjects
 |
| * Enrolling, consenting, and educating study subjects
 |
| * Preparing, implementing, and monitoring data collection
 |
| * Managing close-out process with study participants
 |
| Data Management and Informatics | * Reviewing and report a medical record
 |
| * Collection of data with Electronic Data Capture (EDC) system/Case report form
 |
| * Data analysis
 |
| * Managing research databases
 |
| * Ensuring security of data
 |
| Leadership and Professionalism | * Supervisory duties
 |
| * Guiding and instructing my staff to provide quality experiences
 |
| Communication and Teamwork | * Interpreting results and making recommendations for improvement
 |
| * Presenting and communicating research findings to a professional audience
 |
| * Producing scientific publications/publishing research results
 |
| * Interprofessional collaboration
 |
| * Organizing study meetings
 |
| * Leading meetings
 |
| * Communicating with sponsors and/or key business partners
 |