**Supplementary Material**

Appendix 1: RPN Workshop Titles with Joint Task Force (JTF) Domain Competencies and Level Academic Year (AY) 2017/18 – 2020/21

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Topic** | **JTF Competency Domains** | **Level** |
| **AY 20-21** | | | |
| June 2021 | Lead Site Responsibilities: Monitoring, Oversight, Communications | 4,5,8 | Fundamental |
| May 2021 | Clinical Research Budgets: Advanced Topics | 5 | Advanced |
| April 2021 | GCP Overview and Jeopardy | 4,5 | Fundamental & Advanced |
| March 2021 | Developing a budget | 5 | Fundamental |
| February 2021 | Conducting Remote Research Visits | 4,5,8 | Advanced |
| January 2021 | Electronic Data Capture Systems and Data Management Best Practices | 4,6 | Advanced |
| December 2020 | Remote and eConsent | 2,4,5 | Advanced |
| November 2020 | Time Management Best Practices for Clinical Research Staff | 5,7,8 | Fundamental |
| October 2020 | Qualitative Research Design and Analysis | 1,4,8 | Advanced |
| September 2020 | How We Can Improve Scientific Communication in Clinical Research Using Cultural Competence: Lessons from the TED Stage | 5,8 | Advanced |
| **AY 19-20** | | | |
| May 2020 | Healthy Communication: Managing Conflict in Research Teams | 5,7,8 | Advanced |
| April 2020 | Regulatory Documentation/File Management | 4,5 | Fundamental |
| February 2020 | Leading/Participating in Multisite Research | 4,5,6,8 | Fundamental |
| January 2020 | Writing a Protocol | 1, 4, 5, 8 | Advanced |
| November 2019 | Putting Participants First: Creating a Recruitment Plan For Your Participants, Not Just For Your Research | 2,4,8 | Fundamental |
| October 2019 | FDA Investigational New Drug Applications for Sponsor-Investigators | 1,2,3,8 | Advanced |
| **AY 18-19** | | | |
| June 2019 | Developing Effective Corrective and Preventive Action (CAPA) Plans | 2,4,5,6 | Advanced |
| May 2019 | FDA Inspection Preparedness | 2,3,4,5,6,8 | Fundamental |
| April 2019 | SOP Development | 4,5,8 | Advanced |
| March 2019 | Protocol Compliance | 2,4,6 | Fundamental |
| February 2019 | [Clinicaltrials.gov](http://clinicaltrials.gov/) | 2,4,5 | Advanced |
| January 2019 | Words Matter/Having Difficult Conversations | 5,7,8 | Fundamental |
| December 2018 | Developing Effective Data Collection Tools | 6 | Fundamental |
| November 2018 | A Spectrum of Mixed Methods Research Designs | 1,6 | Fundamental |
| October 2018 | What You Need to Know About Single IRB | 2,5 | Fundamental |
| September 2018 | Why We Need IRB Review | 2 | Fundamental |
| **AY 17-18** | | | |
| June 2018 | Best Practices in Study Documentation | 4,6 | Fundamental |
| May 2018 | Informed Consent | 2,4 | Fundamental |
| April 2018 | IRB 101 | 2 | Fundamental |
| March 2018 | Clinical Trial Budgeting and Negotiation | 5 | Fundamental |
| February 2018 | Managing a Multi-Center Clinical Trial | 4,5,8 | Fundamental |
| January 2018 | So, You Think You Know GCP | 4 | Advanced |
| December 2017 | Monitoring, Auditing and Self-Assessments | 4, 5 | Advanced |
| November 2017 | Classifying & Reporting Adverse Events, Serious Adverse Events, and Unanticipated Problems | 4,5,8 | Fundamental |
| October 2017 | Study Start-up Timeline | 5,8 | Advanced |
| September 2017 | Professionalism in the Research Community | 7 | Fundamental |

Appendix 2: Research Professionals Network (RPN) Evaluation Surveys: Immediate Evaluation and Follow-up

Immediate Evaluation Survey

1. Your institution:

☐BMC/BU Medical Campus

☐UVM/UVM Medical Center

☐UF/UF Health

☐MUSC

☐Other

1. Your role:

☐Study/Research/Clinical Coordinator

☐Research Project Manager

☐Research Assistant

☐Research Nurse

☐Administrator

☐Research Pharmacist

☐Principal Investigator/Researcher

☐Other

1. Please rate the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Excellent | Good | Fair | Poor |
| Overall quality of the workshop |  |  |  |  |
| Overall quality of the hands-on activities |  |  |  |  |
| Choice of teaching strategies |  |  |  |  |
| Overall teaching effectiveness |  |  |  |  |

1. How likely are you to try to apply the skills you learned today in your work setting?

☐Definitely

☐Probably

☐Maybe

☐Probably Not

☐Definitely Not

☐Unsure at this time

4a. Please explain your response.

As you know, four institutions are collaborating in the RPN Workshops (University of Vermont/University of Vermont Medical Center, Boston Medical Center/Boston University Medical Campus, University of Florida, and Medical University of South Carolina).

1. From a technology perspective, what is your experience with the technology connecting the four organizations participating in this workshop?

☐Excellent

☐Good

☐Fair

☐Poor

1. From a content perspective, do you value the inter-institutional collaboration for this workshop?

☐Very much

☐Somewhat

☐Not at all

1. If applicable, please provide additional feedback regarding the institutional collaboration questions above.
2. If you could meet with the workshop presenter(s) one-on-one, what would you want her/him to know about your experience in the workshop today? If nothing, write 'nothing.'
3. We used Zoom Meetings to be able to conduct this workshop remotely.  Please comment on your experience in attending the workshop in this way versus attending in-person.

Follow-up Survey

1. Your institution:

☐BMC/BU Medical Campus

☐UVM/UVM Medical Center

☐UF/UF Health

☐MUSC

☐Other

1. Please respond to the following statements.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| I have applied what I've learned in this workshop to my job. |  |  |  |  |  |
| I am motivated to practice the skills presented in this workshop. |  |  |  |  |  |
| I have incentive to apply these skills in my work setting. |  |  |  |  |  |
| I have extended my learning about this subject beyond the workshop. |  |  |  |  |  |

1. Please describe specific examples of how you have applied the skill(s) into your workplace.
2. Please describe any factors in your work setting that enabled you to apply the skill(s) e.g., PI encouragement, flexibility in role to do so, skill(s) easy to try out without any negative ramifications, beneficial over what I was already doing, compatible with what I was already doing.
3. Please describe any barriers in your work setting that limited your application of the skills e.g., skill(s) above/below my current skill level, lack of time, support, resources, incentives, and/or motivation.

**Appendix 3: Detailed tables 2 and 3**

Table 2 Percent Distributions of Responses from Research Professionals Network (RPN) Immediate Evaluation Closed-ended Questions by Academic Year (AY) and Pre/Post March 2020 Change in How Zoom was Used to Connect Institutions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Questions and Responses** | **Total** | **AY 2017-18** | **AY 2018-19** | **AY 2019-20** | **AY 2020-21** |  | **Zoom connected classrooms**  **(pre March 2020)** | **Zoom connected individuals (post March 2020)** |
| **Overall workshop quality** |  |  |  |  |  |  |  |  |
| 1- Poor | 0.2 | 0.0 | 0.0 | 0.4 | 0.3 |  | 0 | 0.4 |
| 2- Fair | 4.6 | 3.2 | 4.7 | 6.9 | 3.6 |  | 5.7 | 3.6 |
| 3- Good | 34.2 | 25.8 | 38.9 | 38.7 | 32.3 |  | 35.6 | 32.9 |
| 4- Excellent | 61.0 | 71.0 | 56.5 | 54.0 | 63.8 |  | 58.8 | 63.1 |
| *Question responses (n)* | *(999)* | *(155)* | *(193)* | *(261)* | *(390)* |  | *(495)* | *(504)* |
| **Quality of hands-on activities** |  |  |  |  |  |  |  |  |
| 1- Poor | 0.4 | 0.0 | 0.0 | 0.8 | 0.5 |  | 0.4 | 0.4 |
| 2- Fair | 8.9 | 7.9 | 9.4 | 8.6 | 9.4 |  | 9.6 | 8.3 |
| 3- Good | 38.1 | 27.6 | 45.3 | 40.9 | 36.7 |  | 38.8 | 37.4 |
| 4- Excellent | 52.6 | 64.5 | 45.3 | 49.8 | 53.4 |  | 51.2 | 53.9 |
| *Question responses (n)* | *(985)* | *(152)* | *(192)* | *(257)* | *(384)* |  | *(490)* | *(495)* |
| **Presenters’ teaching strategies** |  |  |  |  |  |  |  |  |
| 1- Poor | 0.5 | 0.0 | 0.0 | 0.4 | 1.0 |  | 0 | 1.0 |
| 2- Fair | 6.9 | 3.9 | 4.2 | 10.9 | 6.7 |  | 6.9 | 6.8 |
| 3- Good | 34.5 | 23.9 | 41.1 | 37.6 | 33.3 |  | 34.5 | 34.5 |
| 4- Excellent | 58.2 | 72.3 | 54.7 | 51.2 | 58.9 |  | 58.6 | 57.7 |
| *Question responses (n)* | *992* | *155* | *192* | *258* | *387* |  | *(493)* | *(499)* |
| **Presenters’ teaching effectiveness** |  |  |  |  |  |  |  |  |
| 1- Poor | 0.6 | 0.0 | 0.0 | 0.8 | 1.0 |  | 0.2 | 1.0 |
| 2- Fair | 6.1 | 1.9 | 6.3 | 8.6 | 5.9 |  | 6.1 | 6.0 |
| 3- Good | 34.2 | 25.2 | 35.4 | 38.5 | 34.4 |  | 33.3 | 35.1 |
| 4- Excellent | 59.1 | 72.9 | 58.3 | 52.1 | 58.7 |  | 60.4 | 57.8 |
| *Question responses (n)* | *(991)* | *(155)* | *(192)* | *(257)* | *(387)* |  | *(493)* | *(498)* |
| **Will apply skills to work setting** |  |  |  |  |  |  |  |  |
| 1- Definitely | 58.8 | 64.7 | 60.6 | 60.5 | 54.4 |  | 60 | 57.5 |
| 2- Probably | 25.5 | 23.5 | 26.4 | 24.5 | 26.4 |  | 25.6 | 25.4 |
| 3- Maybe | 9.4 | 5.2 | 7.8 | 8.8 | 12.3 |  | 7.7 | 11.1 |
| 4- Probably Not | 2.8 | 2.6 | 1.6 | 3.1 | 3.3 |  | 3 | 2.6 |
| 5- Definitely not | 0.2 | 0.0 | 0.0 | 0.0 | 0.5 |  | 0 | 0.4 |
| 6- Unsure | 3.3 | 3.9 | 3.6 | 3.1 | 3.1 |  | 3.7 | 3.0 |
| *Question responses (n)* | *(997)* | 153 | 193 | 261 | 390 |  | *(493)* | *(504)* |
| **Collaboration technology** |  |  |  |  |  |  |  |  |
| 1- Poor | 0.5 | NA | NA | 1.0 | 0.3 |  | 1.2 | 0.4 |
| 2- Fair | 7.0 | NA | NA | 13.2 | 3.8 |  | 23.8 | 4.2 |
| 3- Good | 37.1 | NA | NA | 47.2 | 32.1 |  | 56 | 34.0 |
| 4- Excellent | 55.4 | NA | NA | 38.6 | 63.8 |  | 19 | 61.4 |
| *Question responses (n)* | *587* | *0* | *(0)* | *(197)* | *(390)* |  | *(84)* | *(503)* |
| **Valued inter-institutional collaboration** |  |  |  |  |  |  |  |  |
| 1- Not at all | 1.0 | NA | NA | 2.0 | 0.5 |  | 3.6 | 0.6 |
| 2- Somewhat | 13.9 | NA | NA | 17.3 | 12.1 |  | 15.5 | 13.6 |
| 3- Very much | 85.1 | NA | NA | 80.7 | 87.3 |  | 81 | 85.8 |
| *Question responses (n)* | *(584)* | *(0)* | *(0)* | *(197)* | *(387)* |  | *(84)* | *(500)* |

Table 3 Percent Distributions of Responses from Research Professionals Network (RPN) 6-week Follow-up Survey Closed-ended Survey Questions by Academic Year and Pre/Post March 2020 Change in How Zoom was Used to Connect Institutions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Questions and Responses** | **Total** | **AY 2017-18** | **AY 2018-19** | **AY 2019-20** | **AY 2020-21** |  | **Zoom Connected Classrooms (pre March 2020)** | **Zoom Connected Individuals (post March 2020)** |
| **Workshop content applied to job** |  |  |  |  |  |  |  |  |
| 1- Strongly disagree | 2.1 | 1.8 | 2.9 | 1.1 | 2.4 |  | 1.8 | 2.5 |
| 2- Disagree | 6.9 | 10.7 | 1.0 | 6.8 | 10.2 |  | 5.9 | 8.3 |
| 3- Neither | 17.0 | 10.7 | 12.4 | 20.5 | 21.3 |  | 15.1 | 19.7 |
| 4- Agree | 44.9 | 44.6 | 49.5 | 47.7 | 39.4 |  | 46.6 | 42.7 |
| 5- Strongly agree | 29.0 | 32.1 | 34.3 | 23.9 | 26.8 |  | 30.6 | 26.8 |
| *Question responses (n)* | *(376)* | *(56)* | *(105)* | *(88)* | *(127)* |  | *(219)* | *(157)* |
| **Motivated to practice skills** |  |  |  |  |  |  |  |  |
| 1- Strongly disagree | 1.3 | 1.8 | 1.9 | 1.1 | 0.8 |  | 1.4 | 1.3 |
| 2- Disagree | 1.9 | 3.6 | 0 | 1.1 | 3.1 |  | 1.4 | 2.5 |
| 3- Neither | 8.2 | 7.3 | 6.6 | 13.5 | 6.3 |  | 9.1 | 7.0 |
| 4- Agree | 51.5 | 40 | 51.9 | 51.7 | 55.9 |  | 49.5 | 54.1 |
| 5- Strongly agree | 37.1 | 47.3 | 39.6 | 32.6 | 33.9 |  | 38.6 | 35.0 |
| *Question responses (n)* | *(377)* | *(55)* | *(106)* | *(89)* | *(127)* |  | *(220)* | *(157)* |
| **Incentives to apply skills to work** |  |  |  |  |  |  |  |  |
| 1- Strongly disagree | 1.3 | 1.8 | 1.9 | 1.1 | 0.8 |  | 1.4 | 1.3 |
| 2- Disagree | 3.2 | 3.6 | 1.9 | 2.3 | 4.7 |  | 2.3 | 4.5 |
| 3- Neither | 12.5 | 14.5 | 11.3 | 12.5 | 12.6 |  | 12.8 | 12.1 |
| 4- Agree | 46.8 | 34.5 | 46.2 | 54.5 | 47.2 |  | 46.6 | 47.1 |
| 5- Strongly agree | 36.2 | 45.5 | 38.7 | 29.5 | 34.6 |  | 37.0 | 35.0 |
| *Question responses (n)* | *(376)* | (55) | (106) | (88) | (127) |  | (219) | (157) |
| **Learning beyond workshop** |  |  |  |  |  |  |  |  |
| 1- Strongly disagree | 1.9 | 1.8 | 1.0 | 1.1 | 3.1 |  | 0.9 | 3.2 |
| 2- Disagree | 12.8 | 20.0 | 5.8 | 11.4 | 16.5 |  | 12.0 | 14.0 |
| 3- Neither | 24.6 | 23.6 | 25.0 | 21.6 | 26.8 |  | 23.0 | 26.8 |
| 4- Agree | 34.5 | 27.3 | 38.5 | 42.0 | 29.1 |  | 36.9 | 31.2 |
| 5- Strongly agree | 26.2 | 27.3 | 29.8 | 23.9 | 24.4 |  | 27.2 | 24.8 |
| *Question responses (n)* | *(374)* | *(55)* | *(104)* | *(88)* | *(127)* |  | *(217)* | *(157)* |