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RESEARCH JOB FAMILY - RESEARCHER

JOB FAMILY CONCEPT: The Research job family is responsible for all aspects of research related activities by facilitating the dissemination of information through the discovery of new knowledge, techniques, and concepts. The Research job family designs, implements, conducts, interprets research, and performs statistical analysis of data using theoretical, applied, clinical, and translational methods. Research roles serve to perform all aspects of research including but not limited to clinical, operational and technical support, safety, compliance, data collection, lab management, literature review, grant writing and submission, protocol design, writing for publication and dissemination, mentoring students, and design and fabrication of equipment used in research experimentation.

RESEARCHER

The Researcher role is responsible for either planning, maintaining, or completing all phases of research programs and/or projects and related activities involved in the discovery of new knowledge, techniques, materials, and concepts, which require fundamental scientific, research, or engineering knowledge, skills, and abilities typically achieved by professional preparation. Researcher roles follow relevant policies, procedures, regulations and laws. Levels are distinguished based on autonomy, complexity, and proven expertise.

The **Researcher** role is distinguished from the **Research Technician** role in that it uses broad scientific knowledge, concepts, and principles to perform job functions and demonstrates a level of expertise typically gained through professional preparation. The **Researcher** role exercises significant independence and autonomy, and has increased accountability.

The **Researcher** role is distinguished from the **Research Management** role in that the management role is primarily responsible for people and resource management of a division, college, campus, or institute. The **Research Management** role provides senior-level strategic expertise and guidance, and has increased accountability.

RESEARCHER 1

Typical Functions

Supports the execution of routine aspects of a research project with minimal supervision as directed by following established protocol and using methods previously published. Provides administrative and professional support to research programs and projects. Performs structured research-related work assignments and conducts routine or fundamental experiments, investigations and/or studies requiring general knowledge in relevant field. Collects data/samples related to research projects. Records, compiles, processes and analyzes data/samples. Documents results and may assist in the preparation of research results for publication or presentation as co-author. Assists with coordinating research efforts including logistics such as equipment, materials and labor needs, and may assist with lab management. May provide guidance and training to students and lower level staff.

Complexity and Decision Making Authority

Follows established research design where actions tend to be guided by schedules, due dates and clear deliverables. Work is performed under general guidance and is checked for compliance with protocols/plans. Makes some independent judgements and decisions.

Knowledge, Skills, and Abilities

General knowledge in a field of research. General knowledge of moderately complex research or lab equipment,

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materials and processes related to lab/facility operations. Knowledge of procedures for experimentation, observation, documentation and data collection.

Education/Experience

Bachelor's degree or equivalent in a relevant field, or an equivalent combination of training and experience. Master's degree or some equivalent experience preferred.

RESEARCHER 2

Typical Functions

Provides professional support to research programs and projects. Performs structured research-related work assignments and conducts moderately complex experiments, investigations and/or studies requiring knowledge and experience in relevant field. Assists in developing plans, protocols and proposals. Solves a range of straightforward problems that may include suggesting and implementing procedural and design modifications. Records, processes, analyzes and interprets data. Documents results and assists in the preparation of research results for publication or presentation as co-author. Coordinates moderately complex research efforts including logistics such as equipment, materials and labor needs. May assist with lab management including supply management and safety compliance. May perform cost analyses and make budget recommendations. May supervise/train students and lower level staff.

Complexity and Decision Making Authority

Work is performed under general guidance and occasionally checked. Incumbents are expected to make frequent independent judgments and decisions.

Knowledge, Skills, and Abilities

Possesses advanced knowledge in a field of research and has working knowledge of equipment, materials and processes related to lab/facility operations.

Education/Experience

Master's degree or equivalent in a relevant field, or an equivalent combination of training and experience.

RESEARCHER 3

Typical Functions

Provides professional support to research programs and requiring specialized depth and/or breadth of expertise to carry out duties. Independently performs component(s) of a research program with general guidance by a senior member of research team or principal investigator. Develops plans, protocols, and proposals; this level may lead this effort. Solves complex and varied problems utilizing a broad disciplinary perspective to identify solutions. Leads or contributes to design modifications. Provides routine professional support of protocols, plans, documentation, observation and data collection. Records, processes, analyzes, interprets, creates models, and presents data. Contributes to publications as co-author. Manages research logistics such as equipment, materials, labor and support of facility/lab operations, including lab management and safety. May perform cost analysis and recommend budgets pertaining to grant proposals. May supervise/train students and lower level staff.

Complexity and Decision Making Authority

Work is performed under limited supervision. Incumbents are expected to make frequent independent judgments and decisions.

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Knowledge, Skills, and Abilities

Possesses advanced knowledge in a field of research and has broad knowledge of equipment, materials and processes related to lab/facility operations including moderately complex procedures for observation, documentation and collection, analysis and presentation of data.

Education/Experience

Master's degree or equivalent in a relevant field, plus two to three years relevant experience or an equivalent combination of training and experience.

RESEARCHER 4

Typical Functions

Provides professional support of research programs and projects in complex cases requiring depth of expertise to carry out duties. Contribute to work of other research professionals and faculty to produce complete projects. May independently conduct work complementary to the overall research objectives. Designs research projects and exercises broad judgement, independence and expertise in planning, design, documentation, observation, data collection, analysis, interpretation and presentation of research data. May be lead author on publications. Contributes to the development of complex project proposals, plans and protocols. Leads and/or supervises other research staff.

Complexity and Decision Making Authority

Work is performed under very limited supervision. Incumbents are expected to make frequent independent judgments and decisions. Guidance is often limited to only the most complex, solution-resistant scenarios.

Knowledge, Skills, and Abilities

Possesses advanced knowledge in a field of research and has a depth of expertise and broad knowledge of equipment, materials and processes related to lab/facility operations including moderately complex procedures for observation, documentation and collection, analysis and presentation of data.

Education/Experience

Master's degree or equivalent in a relevant field, plus four to five years relevant experience or an equivalent combination of training and experience. PhD or equivalent terminal degree in relevant field preferred.

RESEARCHER 5

Typical Functions

Responsible for overseeing multiple research-related projects or a single, complex project spanning several years. Serves as an independent researcher or a collaborator on a multi-faceted research initiative and/or has lead responsibility for components of a larger project under the general direction of a senior or principal researcher. Directs and/or conducts research and is responsible for research project deliverables, analysis of data, conclusions, publications, and creative activity. Formulates and implements short- and long-range goals, including determination of scientific techniques, use of equipment/lab and administrative procedures. Evaluate and suggest alternative research methods, modify or develop new procedures and techniques to aid in the investigation of a total research problem or program. Interact with various agencies to acquire and interpret data, develop novel methods for analyzing data using programming, model building, and database development and management. May assist with plan for new avenues of investigation. May lead or assist in drafting proposals to secure funding. May supervise, but position does not exist to provide supervision.

Complexity and Decision Making Authority

Exercises considerable independent judgment. Works under general supervision but has discretion to make daily

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operational decisions. Problems require integrative solutions and understanding of how resources fit to meet research objectives. Expected to have expertise in a wide range of techniques, methods and procedures common to discipline.

Knowledge, Skills, and Abilities

Possesses highly advanced knowledge in a field of research and the design of experiments. Broad expert level knowledge of a wide range of complex equipment, materials and processes related to research planning, funding and operations. Possesses high level of knowledge and skill related to design of research and the analysis, presentation and publication of research findings.

Education/Experience

PhD or equivalent terminal degree in relevant field, plus two years relevant experience or an equivalent combination of training and experience. May require proven record of peer reviewed publications.

RESEARCHER 6

Typical Functions

Responsible for handling a variety of assigned complex research related projects. Applies in-depth level subject matter knowledge. Functions as independent researcher, collaborator, or under the general direction of a senior or principal researcher. Conducts large research project or several smaller projects and coordinates the analysis, evaluation and reporting on phases of the project including developing research plans and solving highly complex methodology, protocol, procedural and research problems through the original design of protocols, policies and procedures which frequently involve researching advanced concepts and developing original solutions in the absence of clear standards. Assists with and/or plans new avenues of investigation, develops projects and generates external funding. May conduct significant original research. May manage financial and budgetary aspects of a laboratory and research projects as principal investigator. May supervise, but position does not exist to provide supervision.

Complexity and Decision Making Authority

Operates mostly independently. Searches to modify practices and procedures to effectively achieve results. Problems are increasingly difficult and are solved by changing conditions or circumstances requiring creativity and development of new approaches.

Knowledge, Skills, and Abilities

Possesses mastery of knowledge and skill related to design of research and the analysis, presentation and publication of research findings.

Education/Experience

PhD or equivalent terminal degree in relevant field, plus five years relevant experience or an equivalent combination of training and experience. May require substantial research and publication record.

RESEARCHER 7

Typical Functions

Responsible for leading highly complex, specialized, or multifaceted research projects often as the principal investigator and directs the work of other research staff. Functions as independent researcher, collaborator, or under the general direction of a senior or principal researcher. Conducts significant original research. Primarily responsible for all aspects of the project including budgets, compliance and establishment of protocols. Plans and executes complex research studies by defining and leading specific strategies. Designs, implements, evaluates and analyzes both independent and

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collaborative research projects. Leads new avenues of investigation, develops projects and may lead the submission of proposals to generate external funding. Leads and/or supervises staff, but position does not exist to provide supervision.

Complexity and Decision Making Authority

Operates independently with guidance and oversight from supervisor by exception generally only confined by the research agenda and priorities of the department, institute, or college.

Knowledge, Skills, and Abilities

Possesses authoritative knowledge and skill related to design of research and the analysis, presentation and publication of research findings.

Education/Experience

PhD or equivalent terminal degree in relevant field, plus six years relevant experience or an equivalent combination of training and experience. May require substantial research and publication record and scholarly recognition.