Research Scientist (Various Specialties) Series

California State Personnel Board Specification

Series established July 23, 2002

Scope

This series specification describes eight professional Research Scientist classes responsible for the direction and conduct of highly specialized ~~public health~~ scientific research investigations that are necessary to meet the responsibilities of the State to protect ~~and improve the~~ public health ~~of its citizens~~ and the environment and the economic wellbeing of California depending on the specialty. The Research Scientist class is engaged in conducting research investigations and scientific inquiry to contribute to the State's knowledge as it relates to ensuring public health, agricultural productivity, and protection of the environment through informed decision-making. ~~The purposes of the research conducted are to contribute to the understanding, prevention, and control of illnesses and injuries and to develop public health education and prevention programs that result in reduced morbidity and mortality, and to measure the efficiency of the health care system in reducing morbidity and mortality.~~

The categories of research include biological sciences, chemical sciences, epidemiology/ biostatistics, food and drug sciences, microbiological sciences, physical and engineering sciences, social/behavioral sciences, toxicological sciences, and veterinary sciences. The particular specialized research discipline used depends on the nature of the research required to be conducted in order to protect public health, agricultural productivity, and/or the environment.

Research Scientist (Various Specialties) Series Specification - Class Titles and Codes

Schem Code	Class Code	Class
		Research Scientist I (Biological Sciences)
LR01	5576	Research Scientist I (Chemical Sciences)
LR02	5577	Research Scientist I (Epidemiology/Biostatistics)
LR03	5578	Research Scientist I (Microbiological Sciences)
LR04	5579	Research Scientist I (Physical/Engineering Sciences)
LR05	5580	Research Scientist I (Social/Behavioral Sciences)
		~~Research Scientist I (Toxicological Sciences)~~
		Research Scientist II (Biological Sciences)
LR06	5581	Research Scientist II (Chemical Sciences)
LR07	5582	Research Scientist II (Epidemiology/Biostatistics)
LR08	5585	Research Scientist II (Food and Drug Sciences)

Research Scientist (Various Specialties) Series Specification - Class Titles and Codes

Schem Code	Class Code	Class
LR09	5587	Research Scientist II (Microbiological Sciences)
LR10	5588	Research Scientist II (Physical/Engineering Sciences)
LR11	5590	Research Scientist II (Social/Behavioral Sciences)
		~~Research Scientist II (Toxicological Sciences)~~
		Research Scientist III (Biological Sciences)
LR12	5591	Research Scientist III (Chemical Sciences)
LR13	5594	Research Scientist III (Epidemiology/Biostatistics)
LR14	5596	Research Scientist III (Food and Drug Sciences)
LR15	5599	Research Scientist III (Microbiological Sciences)
LR16	5604	Research Scientist III (Physical/Engineering Sciences)
LR17	5605	Research Scientist III (Social/Behavioral Sciences)
		Research Scientist III (Toxicological Sciences)
LR18	5606	Research Scientist III (Veterinary Sciences)
		Research Scientist IV (Biological Sciences)
LR19	5608	Research Scientist IV (Chemical Sciences)
LR20	5609	Research Scientist IV (Epidemiology/Biostatistics)
LR21	5611	Research Scientist IV (Food and Drug Sciences)
LR22	5612	Research Scientist IV (Microbiological Sciences)
LR23	5613	Research Scientist IV (Physical/Engineering Sciences)
LR24	5622	Research Scientist IV (Social/Behavioral Sciences)
		Research Scientist IV (Toxicological Sciences)
LR25	5625	Research Scientist IV (Veterinary Sciences)
		Research Scientist V (Biological Sciences)
LR26	5627	Research Scientist V (Chemical Sciences)
LR27	5629	Research Scientist V (Epidemiology/Biostatistics)
LR28	5631	Research Scientist V (Food and Drug Sciences)
LR29	5634	Research Scientist V (Microbiological Sciences)
LR30	5635	Research Scientist V (Physical/Engineering Sciences)
LR31	5636	Research Scientist V (Social/Behavioral Sciences)
		Research Scientist V (Toxicological Sciences)
LR32	5637	Research Scientist V (Veterinary Sciences)
LR33	5638	Research Scientist Supervisor I (Chemical Sciences)
		Research Scientist Supervisor I (Biological Sciences)
LR34	5643	Research Scientist Supervisor I (Epidemiology/Biostatistics)

Research Scientist (Various Specialties) Series Specification - Class Titles and Codes

Schem Code	Class Code	Class
LR35	5644	Research Scientist Supervisor I (Food and Drug Sciences)
LR36	5645	Research Scientist Supervisor I (Microbiological Sciences)
LR37	5646	Research Scientist Supervisor I (Physical/Engineering Sciences)
LR38	5647	Research Scientist Supervisor I (Social/Behavioral Sciences)
		Research Scientist Supervisor I (Toxicological Sciences)
LR39	5649	Research Scientist Supervisor I (Veterinary Sciences)
		Research Scientist Supervisor II (Biological Sciences)
LR40	5650	Research Scientist Supervisor II (Chemical Sciences)
LR41	5651	Research Scientist Supervisor II (Epidemiology/Biostatistics)
LR42	5652	Research Scientist Supervisor II (Food and Drug Sciences)
LR43	5654	Research Scientist Supervisor II (Microbiological Sciences)
LR44	5655	Research Scientist Supervisor II (Physical/Engineering Sciences)
LR45	5656	Research Scientist Supervisor II (Social/Behavioral Sciences)
		Research Scientist Supervisor II (Toxicological Sciences)
LR46	5660	Research Scientist Supervisor II (Veterinary Sciences)
		Research Scientist Manager (Biological Sciences)
LR47	5661	Research Scientist Manager (Chemical Sciences)
LR48	5662	Research Scientist Manager (Epidemiology/Biostatistics)
LR49	5667	Research Scientist Manager (Food and Drug Sciences)
LR50	5669	Research Scientist Manager (Microbiological Sciences)
LR51	5670	Research Scientist Manager (Physical/Engineering Sciences)
LR52	5671	Research Scientist Manager (Social/Behavioral Sciences)
		Research Scientist Manager (Toxicological Sciences)
LR53	5675	Research Scientist Manager (Veterinary Sciences)

The terms "~~public health~~ scientific research" as applied to this class series are characterized in part by the following attributes:

1. Application of the scientific methods including definition of the nature and scope of the problem; development of research questions; planning and execution of research design; analysis and interpretation of findings; and documentation and appropriate dissemination of results to the public and other ~~public health~~ professionals. Through this systematic, intensive investigative procedure, a greater scientific understanding of a ~~public health~~ scientific issue or subject is achieved. The scientific research conducted supports the ~~prevention of injury and illness~~ protection and enhancement of public health, agriculture, and/or the environment.

2. A requirement for the exercise of creativity and critical judgment in recognizing and selecting appropriate public health, agricultural productivity, and/or environmental problems in need of study or investigation, in selecting or devising appropriate methods for study, investigation, and analysis, and in interpreting results to achieve maximum understanding and the protection of public health, agricultural productivity, and/or the environment.

3. The scientific research conducted uses a process of scientific investigations into current public health, agricultural productivity, and/or environmental problems or issues and can result in new procedures, methods, or control actions for injury or disease prevention and/or prevention of adverse environmental impacts. Research results are also used to inform decision-making and establish new public health, agricultural, and/or environmental education programs.

Entry Levels

Entry into this series may be at any level, dependent upon the characteristics of the research or scientific investigation activities, and the academic education and experience of the candidates.

Factors Affecting Position Allocation

~~A.~~ Position allocation is affected by the research and scientific investigation responsibility of the department; the supervision required; the originality and creativity required and the professional qualifications and scientific contributions.

~~1. The research and scientific investigation responsibility of the department.~~

~~a. Scope and complexity of the research or scientific investigation activity required.~~
~~b. Originality of the research or scientific investigation activity required.~~
~~c. The potential impact of the research on scientific knowledge, or the magnitude of the possible impact on human health.~~
~~d. The sensitivity of the potential impact on individuals and on community relationships.~~
~~e. Extent of responsibility for the leadership and direction of a research program of varying complexity and duration.~~

~~2. Supervision required.~~

~~a. Degree of freedom in identifying and selecting problems associated with public health issues appropriate to the subspecialty.~~
~~b. Degree of responsibility for formulating hypotheses, planning, and executing a study or scientific investigation, coping with difficult and unanticipated problems, and analyzing and interpreting results.~~
~~c. Degree of reliance on researcher's professional judgment.~~

~~d. Degree of responsibility for administrative management.~~

~~3. Originality and creativity required.~~

~~a. Extent of applicability of existing theory and methods to the problem.~~
~~b. Extent of need to develop new theory, new testing, or analytic procedures.~~
~~c. Extent of need to synthesize research with efforts in related scientific fields.~~
~~d. Extent of need to apply imagination and creativity to recognize ways in which research findings can be applied to solve problems, prevent illness or injury, or to establish or implement public health policy for which there is incomplete scientific information.~~

~~4. Professional qualifications and scientific contributions.~~

~~a. Academic professional preparation.~~
~~b. Experience relevant to the field of research proposed or scientific investigations conducted and its application to public health.~~
~~c. Quality of previous research or scientific investigations.~~
~~d. Professional recognition.~~
~~– Certification in scientific subspecialty as appropriate.~~
~~– Leadership positions in State and national organizations as appropriate to subspecialty.~~
~~– Presentation of scientific papers.~~
~~– Leadership positions on scientific committees.~~
~~– Committee and study section assignments.~~
~~– Awards and citations.~~
~~e. Productivity.~~
~~– Publications in scientific literature of products.~~
~~– Citations by other publications.~~
~~– Acquisition of grants and contracts as appropriate to career stage.~~
~~– The public health research projects completed which include scientific investigations or the development of new laboratory standards and methods.~~

Definition of Levels

Research Scientist I (Various Specialties): Under supervision of senior scientific research personnel, incumbents plan, organize, and carry out scientific research studies of limited scientific scope and complexity; may serve as a team member on public health, agricultural productivity, or environmental projects and investigations or act as a technical scientific consultant on a specific phase of a more complex scientific study; make independent decisions in a very limited or restricted area of a specific scientific field; solve problems using standard principles, procedures, and techniques for their scientific area of expertise when fully trained, and perform other related work. The incumbent's work is reviewed to see that it conforms to established policies and procedures.

Research Scientist II (Various Specialties): Under general supervision, incumbents plan, organize, and carry out scientific research studies of moderate scientific scope and complexity; may serve as a team member on public health, agricultural productivity, or environmental projects and investigations within their program and act as a technical scientific consultant on a specific phase of a more complex scientific research study; make independent, difficult decisions in a specific scientific field using established guidelines and technical scientific procedures and adapt research methods to problems with limited scientific scope, and perform other related work. Work is reviewed periodically to see that it generally conforms to established policies and procedures.

Research Scientist III (Various Specialties): Under general direction, incumbents plan, organize, and direct scientific research studies of a highly developed scientific scope and complexity; make independent, complex decisions in their specific scientific field; may serve as scientific advisors or consultants to other lower-level scientists conducting studies in their specific scientific field of expertise; and adapt methods, techniques, and procedures to carry out assignments. Work and conclusions are accepted as technically authoritative and are reviewed only for meeting the assignment's objectives. Incumbents conduct highly specialized phases of a major scientific project or investigation of sufficient scope to require coordination with professional staff from other State, local, or Federal agencies; present scientific research or investigations conducted to public health, agricultural productivity, and/or environmental experts and the community, and publish research in scientific journals; may act as an expert witness; and perform other related work.

Research Scientist IV (Various Specialties): Under managerial or administrative direction, incumbents plan, organize, and direct major scientific research studies that are complex and original and have statewide sensitivity and policy impact; make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk, and then develop and test hypotheses on causes; and conceive, plan, and conduct scientific research work of large scope on a statewide or national basis that has extreme difficulty and complexity of public health, agricultural productivity, or the environment. The results of their applied scientific research can be used in public health and/or adverse environmental impact prevention and control programs. Incumbents use their scientific expertise to plan, direct, and execute major professional public health, agricultural, or environmental research studies. Provide evaluations and scientific recommendations as a scientific expert. Scientific recommendations are normally accepted as sound without close review unless matters of policy are involved. Incumbents seek and analyze all relevant, available, scientific, technical, medical, environmental, and other information from sources within and outside the organization, and integrate this information into the decision-making process. If relevant information is not available, incumbents identify this shortfall to management and develop proposed studies necessary to generate this information. Incumbents consult with department management and others in areas appropriate to their qualifications and participate in the development of public health, agricultural, or environmental policy; provide consultation to departmental management and others as requested; make presentations to State public health, agricultural, or environmental experts and the community on the scientific research conducted and also publish this research in scientific journals; act as a subject-matter expert in conducting public health, agricultural, or environmental scientific research that has the potential for adverse public health, agricultural productivity, or environmental impact ~~on~~

~~community health~~; provide interpretations of scientific research findings for use by others; may act as an expert witness; and perform other related work. Decision making at this level has a higher consequence of error than that of Research Scientist III.

Research Scientist V (Various Specialties): Under managerial or administrative direction, incumbents conceive, plan, organize, and direct the most difficult, advanced, complex, and highly original scientific research studies; provide leadership and coordinate scientific research studies and scientific investigations involving local, State, and Federal public health, agricultural, and/or environmental agencies; and make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk, and develop and test hypotheses on causes. The work complexity at this level has special significance for the establishment of State and national public health, agricultural, or environmental policy and legislation. Incumbents provide advice and guidance to management on matters of such difficulty and controversy that leading experts disagree as to the proper scientific approach; act as subject-matter and technical experts and serve as the highest level scientific expert for the department based on personal scientific reputation; consult with department management and others in areas appropriate to their qualifications and participate in the development of public health, agricultural, or environmental policy; provide scientific support and direction for the legal, legislative, and regulatory actions that occur in public health, agricultural, or environmental policy development; provide scientific presentations to State and national public health, agricultural, or environmental experts and the community on scientific research conducted and also publish this research in scientific journals; may act as an expert witness; and perform other related work. Incumbents work independently and provide interpretation of research findings for use in public health, agricultural, or environmental policy development by upper management. Decision making at this level has a higher consequence of error than that of Research Scientist IV.

Research Scientist Supervisor I (Various Specialties): Under general direction, the Research Scientist Supervisor I is responsible for the supervision of Research Scientists I, II, and III and other lower-level staff and serves as the first supervisory level in the Research Scientist series. Positions allocated to this class will be considered as working level supervisors responsible for a small unit of scientific and nonscientific staff Incumbents provide administrative guidance and direction to subordinates and plan, organize, and direct major scientific research studies or public health, agricultural, or environmental investigations of a broad scientific scope and complexity; make independent decisions in their specific scientific field; may serve as advisors or consultants to other lower-level scientists conducting studies in their specific scientific field of expertise. Incumbents adapt methods, techniques, and procedures to carry out assignments. Work and conclusions are accepted as technically authoritative and are reviewed only for meeting the assignment's objectives. Incumbents may also conduct highly specialized phases of a major scientific project or investigation of sufficient scope to require coordination with professional staff from other State, local, or Federal agencies; publish or present scientific research or investigations conducted to other public health, agricultural, or environmental experts and the community; provide interpretations of scientific research findings for use by others; prepare required budgetary and staffing patterns for special scientific research projects; recruit, train, and supervise appropriate research personnel; may represent the department in promoting,

explaining, and coordinating scientific research affecting public health, agricultural productivity, or the environment; may act as an expert witness; and perform other related work.

Research Scientist Supervisor II (Various Specialties): Under broad administrative direction, the Research Scientist Supervisor II is responsible for the supervision of Research Scientists I, II, III and IV and Research Scientist Supervisors I. Incumbents serve as second-level supervisors responsible for a moderate or large group of scientific and nonscientific staff composed of supervisors and nonsupervisors, . Programs with high visibility requiring unique scientific expertise in which the incumbent has independent science-based decision-making responsibilities on a statewide level may supervise fewer personnel. Incumbents provide administrative guidance and leadership in planning, organizing, and directing difficult and complex major original scientific research studies or public health, agricultural, or environmental investigations that have broad statewide scientific scope, high sensitivity, and policy impact; make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk and then develop hypothesis on causes and also test these hypotheses; conceive, plan, and conduct scientific research work of large scope on a statewide or national basis, that has extreme difficulty and complexity in unexplored areas of public health, agricultural productivity, or the environment. The incumbent's work involves high levels of uncertainty and a balancing of conflicting interest of extreme intensity. The results of their applied research are used in public health, agricultural, and adverse environmental impact prevention and control programs. Incumbents use their scientific expertise to plan, direct, and execute major professional public health, agricultural, or environmental research studies. Provide evaluations and scientific recommendations made by the incumbent as those of a scientific expert; and direct the analysis of all relevant, available, scientific, technical, medical, and other information from sources within and outside the organization, and direct the integration of this information into the decision-making process. Incumbents direct the development of proposed scientific research studies to evaluate new public health, agricultural, or environmental strategies if relevant information is not available; consult with department management and others in areas appropriate to their qualifications and participate in the development of public health, agricultural, and/or environmental policy; provide scientific technical expertise in a science area appropriate to their educational qualifications and provide consultation to departmental management and others as requested; direct the publication or presentation of scientific research or investigations conducted on a statewide basis to state public health, agricultural, or environmental experts and the community; may act as an expert witness; and perform other related work.

Research Scientist Manager (Various Specialties): The Research Scientist Manager is responsible for the supervision of Research Scientists I through V, Research Scientist Supervisors I and II, and other staff as appropriate and serves as the only managerial level of this series. Organizationally, incumbents are in the top management structure and are responsible for the management of a large group of scientific and nonscientific staff, composed of supervisors and nonsupervisors. Programs with high visibility requiring unique scientific expertise in which the incumbent has independent science-based, decision-making responsibilities at a State and national level may manage fewer personnel. Incumbents provide management guidance and leadership in planning and directing scientific research studies or public health, agricultural, or environmental investigations that have advanced broad

statewide and national scientific scope, complexity, and the highest sensitivity and policy impact. Under broad administrative direction, incumbents conceive, plan, organize, and direct the most difficult, advanced, complex, and highly original scientific research studies or public health, agricultural, or environmental investigations; provide leadership and coordinate scientific research studies and scientific investigations involving local, State, and Federal public health, agricultural, and/or environmental agencies. Incumbents make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk and develop hypotheses on causes and also test these hypotheses. The work complexity at this level has special significance for the establishment of State and national public health, agricultural, or environmental policy and legislation. Incumbents provide advice and guidance to top management on the most critical scientific public health, agricultural, or environmental matters as a leading expert in the field based on professional standing; direct the analysis of all relevant, available, scientific, technical, medical, environmental, agricultural, and other information from sources within and outside the organization, and direct the integration of this information into the decision-making process; direct the development of proposed scientific research studies if relevant information is not available; provide scientific technical expertise and can serve as a spokesperson for the department in a science area appropriate to their educational qualifications; consult with department management and others in areas appropriate to their qualifications and participate in the development of public health, agricultural, and/or environmental policy; provide scientific support and direction for the legal, legislative, and regulatory actions that occur in public health, agricultural, or environmental policy development; direct the publication of scientific research, or investigations conducted on a statewide basis; make presentations to State and national public health, agricultural, or environmental experts and the community; direct the interpretation of research findings for use in public health, agricultural, or environmental policy development by upper management; may act as an expert witness; and perform other related work.

Definition of Specialties

Biological Sciences

Incumbents in this parenthetical are distinguished from other Research Scientists in that they conduct, analyze and draw conclusions from biological research studies as related to organisms, their environment and ecological systems. This work requires knowledge of scientific principles, research methods and techniques involving zoology, botany, agronomy, ecology, genetics, taxonomy, conservation biology, and other related biological sciences and their application to resource conservation and management activities, and zoonotic diseases. Further, this series requires knowledge in study design natural and physical sciences relating to biological resources including fish, invertebrates, microorganisms, plants and wildlife and their environment. Incumbents may conduct experiments, develop biological surveys/monitoring, research studies or investigations; evaluate and analyze data; publish research findings; and make recommendations. Incumbents perform a broad range of technical biological research work which focuses on a variety of programs relating to resource conservation, management and restoration, agriculture, and pest or pathogen prevention.

Chemical Sciences

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from research studies of chemistry as related to public, ~~and~~ environmental, or ecological health. This work requires broad knowledge of chemistry in the areas of analytical chemistry, physical chemistry, organic chemistry, and biochemistry. Scientific research and investigation can also be conducted in pharmacology, toxicology, drug chemistry, food chemistry, biochemistry, environmental chemistry, clinical chemistry, immunochemistry, and molecular biology. Research study conclusions are used to improve detection and identification of chemicals and biochemicals including toxic chemicals, metabolites, nutrients, pharmaceuticals, and enzymes; assess environmental fate and transport of chemical pollutants; assess exposure pathways and body burdens of chemical pollutants in humans and biological receptors; assess relationships between body burdens and resultant health or ecological effects; to evaluate environmental or human exposures, effects, or risks; and investigate methods and technologies that have the potential to prevent adverse public, ~~and~~ environmental, or ecological health effects of chemical exposures.

Epidemiology/Biostatistics
Incumbents in this parenthetical are distinguished from other Research Scientists by being required to design, conduct, analyze, and draw conclusions from epidemiologic or biostatistical investigations. These investigations apply statistical and survey techniques and biologic theory for the purpose of describing and understanding the distribution and determinants of disease, health, and genetic conditions in the population and the response of the health care system. Subspecialties focus on infectious agents (general communicable diseases, zoonotic diseases, food borne diseases, vector borne diseases)~~:~~; nutrition and lifestyle factors; social or environmental factors; health promotion; chemical and physical agents in the environment; chronic diseases and injuries; detection, distribution, and treatment of genetic disorders; other genetic influences on disease; and the efficacy of public health, clinical medical, and other interventions in modifying these influences. Scientific research, disease surveillance, and epidemiologic-based investigations are conducted to identify the source of human illness or injury, to prevent or control its occurrence, and to measure the effectiveness of those controls. Scientific research, disease surveillance, and epidemiologic investigations could evaluate the entire ecology of illness occurrence at the molecular or genetic level using molecular epidemiology.

Food and Drug Sciences
Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and conduct research studies on food, cosmetic, and consumer product safety, and drug and medical device consumer product safety and effectiveness. Subspecialties in this parenthetical focus on food product safety, drug product safety, cosmetic product safety, or medical device product safety. Work in a subspecialty requires advanced knowledge in a specific area of food microbiology, nutrition, food technology, food biochemistry, food or drug chemistry, drug pharmacology, biomedical device engineering sciences, or risk assessment. Research studies and investigation conclusions are used to ensure the production of safe foods, drugs, cosmetics, and medical devices. In food borne illness outbreaks, investigations are conducted and, using scientific risk assessment procedures, the potential sources of contamination are identified and controlled through scientific research on the source of contamination and the implementation of new food manufacturing procedures. Incumbents, working in drug, cosmetic, or medical device safety have knowledge of the technologies used to uniformly

assure the safety and effectiveness of these consumer products; locate, review, and evaluate current relevant scientific information and expert opinion to determine whether investigational new drug or device studies are adequately designed and controlled to generate scientifically valid and useful data; consult with other scientists, evaluate scientific data, and recommend necessary control measures to minimize adverse health outcomes; and verify that all scientific data submitted in support of industry claims is accurate and that foods and cosmetics are safe and drugs and medical devices are safe and effective.

Microbiological Sciences
Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from research studies and scientific investigations of the microbial, viral, and immunologic aspects of infectious diseases. Scientific research and investigations require an understanding of infectious disease, infectious disease outbreaks and/or new or emerging infectious diseases. Work in a subspecialty requires broad knowledge in a specific area of bacteriology, parasitology, mycology, virology, microscopy, molecular biology/microbial genetics, food, and water microbiology. Research study conclusions are used to improve detection and identification of infectious disease-causing microorganisms; define mechanisms and modes of infectious disease transmission; identify mechanisms of tissue injury; identify and define mechanisms of immunity to microbial agents; support improved investigation of infectious disease outbreaks; and improve methods to prevent infectious disease transmission.

Physical/Engineering Sciences
Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from research studies of the physical and engineering sciences relevant to public, ~~and/or~~ environmental, and/or ecological health. This work requires broad knowledge in Physical/Engineering Sciences in areas such as nonindustrial indoor air quality, community air quality, occupational air quality, air pollution control, water quality control, mechanical or ventilation engineering, atmospheric pollution, atmospheric physics, microscopy, material sciences, and industrial hygiene. Engineering and physical science research and investigations can be conducted in areas such as radiation safety, environmental safety, occupational safety, and water safety. Research study conclusions are used to improve detection and identification of physical agents of public and/or environmental health significance; identify sources, environmental fates, and transport of physical agents; assess exposure pathways and body burdens of physical agents in human and biological receptors; assess the relationships between body burdens and resultant health and ecological effects; and investigate technologies which have potential to protect public health and the environment from effects of exposures to physical agents. Incumbents provide consultation to industry and other governmental agencies on the scientific technological aspects of water safety, radiation safety, environmental safety, and occupational safety as appropriate to technical expertise.

Social/Behavioral Sciences
Incumbents in this parenthetical are distinguished from other Research Scientists by being required to apply the theoretical models and research methods of the social/behavioral sciences, particularly the disciplines of psychology, sociology, anthropology, archaeology, economics, and political science as

they relate to public health, agricultural, or environmental issues or impacts. Work in this parenthetical requires knowledge in one or more of these disciplines to conduct analyses of personality, community, cultural, family, economy, or policy on health, health behavior, treatment, ~~and~~ disease prevention, or environmental conditions in California. This specialty carries out scientific research work related to the evaluations of public health, natural resource management, agricultural, or environmental programs. Among the factors the incumbent examines for health or environmental impact implications are: social and economic trends, race, social and economic inequality, economic impacts and cost factors of policies, ethnic diversity, personality and psychological factors, individual and organizational performance, community dynamics and structure, and community and statewide decision making and policy development. The results of this research would be used in activities such as developing new effective public programs focused on preventing unhealthful or environmentally damaging behaviors and promoting health, agricultural productivity, and environmental quality by behavior modification through ~~health~~ education or public policy development.

Toxicological Sciences

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from toxicological and epidemiological research studies as related to public and environmental health. This work requires a broad knowledge of general toxicology including the areas of carcinogenesis, genetic and epigenetic toxicology, developmental/reproductive toxicity, immunotoxicity, organ system toxicity, mechanisms of toxicity, processes involved in disposition of xenobiotic chemicals in animals and humans, dose response and exposure assessment. Further, this series requires knowledge of the risk assessment process and general methodologies. Research study conclusions are used to identify chemicals that may pose a risk to public or environmental health, to develop quantitative estimates of human and environmental toxicity resulting from chemical exposures and to establish safe-exposure levels. Incumbents may also be required to evaluate, advise and consult on the adequacy of toxicological data submitted by other organizations, advise on the precautionary labeling of hazardous chemicals and products and provide technical consultation in areas such as contaminated site assessment, legislation, rule and regulation promulgation and application and policy development.

Veterinary Sciences

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to design, conduct, analyze, and draw conclusions from pathologic and epidemiologic research studies and scientific investigations in veterinary public health and food safety and security. Scientific research and investigations ~~will use epidemiologic techniques~~ require~~ing~~ an understanding of the clinical and laboratory aspects of zoonotic disease (transmission of disease from animals to human), epizootic diseases, disease outbreaks, and animal die offs potentially associated with environmental contamination, feed contamination, regulated livestock and poultry diseases, and/or introduction of new or emerging disease that may cause significant losses of wildlife, domestic livestock, and/or domestic poultry, or cause human health threats or severe trade restrictions. Incumbents may also conduct research on the effects of petroleum and/or other pollutants and toxicants on wildlife and/or domestic livestock and poultry health. Work in a subspecialty requires advanced knowledge in veterinary preventive medicine, food safety and security, toxicology, pathology, and lab animal

medicine. Incumbents have responsibility for the design, conduct, and analysis of complex scientific research or investigational activities involving the ecology of disease transmission through humans, animals (domestic, wildlife, and laboratory), the environment, and/or food sources and the effects of pollutants and toxicants on domestic and laboratory animals and wildlife~~. In food-borne illness outbreaks, investigations are conducted and, using scientific risk assessment procedures, the potential sources of contamination are identified and controlled though scientific research on the source of contamination and the implementation of new food production and biosecurity procedures.~~
Incumbents are required to analyze and draw conclusions from scientific investigations that apply statistical and surveillance techniques for the purpose of understanding the distribution, determinants, and control of infectious zoonotic agents~~, and~~ food borne illnesses, pollutants, and toxicants.

Minimum Qualifications

All Classes:
Education: The required degree level and emphasis must have been obtained from a recognized U.S. university or from a foreign university approved by the Bureau of Private Postsecondary and Vocational Education under the provision of California Education Code Chapter 3, Part 59, Division 10.

Masters and Doctoral Students: Expected completion of a Masters or Doctoral program within one (1) year will admit applicants to the examination, but they must produce evidence of degree completion prior to appointment eligibility.

Food and Drug Sciences
Meet the requirements to be commissioned by the United States Food and Drug Administration (FDA) prior to appointment to the position.

Toxicological Sciences
Relevant Master's and Doctoral Degrees are in Toxicology, Biochemistry, Pharmacology or a closely related specialty.

Veterinary Sciences
A valid license issued by a state Board of Examiners in Veterinary Medicine to practice as a Doctor of Veterinary Medicine will be required prior to appointment.

Research Scientist I (Various Specialties)
Experience: One year of research experience in a field relevant to the stated specialty. One year towards completion of an advanced degree of the stated specialty or a closely related field may be substituted for this experience.
and
Education: Possession of a bachelor's degree in the stated specialty or a closely related field.

Research Scientist II (Various Specialties)

Either I

Experience: Two years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist I in the stated specialty or a closely related field. One year towards completion of a master's or doctoral degree of the stated specialty or a closely related field may be substituted for one year of the required experience.
and
Education: Possession of a bachelor's degree in the stated specialty or a closely related field.

Or II

Experience: Three years of research experience in the stated specialty or a closely related field. The research experience must have included responsibility for determining research design, choice of methods, and analysis of findings. The research involved in completion of the dissertation required for the doctoral degree may be substituted for one year of the required experience.
and
Education: Possession of a master's degree in the stated specialty or in a closely related field.

Or III

Education: Possession of a Doctoral Degree in the stated specialty or a closely related field.

Research Scientist III (Various Specialties)

Either I

Experience: One year of experience in the California state service performing scientific research duties comparable to a Research Scientist II in the stated specialty or a closely related field.
and
Education: Possession of a master's degree in the stated specialty or a closely related field.

Or II

Experience: One year of progressively responsible scientific research experience in the stated specialty or a closely related field. This experience must have included either: (1) experience with major responsibility for the design and execution of a complex, highly specialized research project; or (2) experience in the coordination and direction of a complex and difficult scientific research effort. This experience must be at a level of responsibility equivalent to that of a Research Scientist II.
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field.

Research Scientist IV (Various Specialties)

Either I

Experience: One year of experience in the California state service performing scientific research duties comparable to those of a Research Scientist III in the stated specialty or a closely related field.
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field.

Or II

Experience: Four years of progressively responsible research experience in the stated specialty or in a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of a large or highly complex and difficult research, and experience in the development, planning, and operation of a multidisciplinary, complex, and difficult research program involving coordination of several groups of disciplines, and preparation of major reports and scientific publications. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in ~~Public Health or preventive medicine~~ the stated specialty or closely related field may be substituted for two years of the required experience.) At least one year of this experience must be at a level of responsibility equivalent to that of a Research Scientist III.
and
Education: Possession of a doctoral degree in the stated specialty or in a closely related field.

Or III

Experience: Four years of progressively responsible professional research experience in a field of medical specialization relevant to the stated specialty or in a closely related field. This experience must have included major responsibility for design, conduct, and analysis of complex research, or responsibility for the administration and coordination of large, complex multidisciplinary, or multi-institutional research programs. At least one year of this experience must be at a level of responsibility equivalent to that of a Research Scientist III.
and
Education: Possession of the degree of Doctor of Medicine.

Research Scientist V (Various Specialties)

Either I

Experience: Two years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist IV or Research Scientist Supervisor I in the stated specialty or a closely related field. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in ~~Public Health or preventative medicine~~ the stated specialty or closely related field may be substituted for one year of the required experience.)
and
Education: Possession of a doctoral degree in the stated specialty or in a closely related field or a degree of Doctor of Medicine.

Or II

Experience: Broad and extensive experience (more than five years) in research or scientific investigation experience in the stated specialty or in a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of a large or highly complex and difficult research project or scientific investigation, including preparation of major reports and scientific publications. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in ~~Public Health or preventative medicine~~ the stated specialty or closely related field may be substituted for two years of the required experience.) At least two years of this experience must be at a level of responsibility equivalent to that of a Research Scientist IV or Research Scientist Supervisor I.
and
Education: Possession of a doctoral degree in the stated specialty or in a closely related field.

Or III

Experience: Broad and extensive research experience (more than five years) in a field of medical specialization relevant to the stated specialty or in a closely related field. This experience must have included major responsibility for design, conduct, and analysis of complex research, or responsibility for the administration and coordination of large, complex multidisciplinary, or multi-institutional research programs. At least two years of this experience must be at a level of responsibility equivalent to that of a Research Scientist IV or Research Scientist Supervisor I.
and
Education: Possession of the degree of Doctor of Medicine.

Research Scientist Supervisor I (Various Specialties)

Either I

Experience: Three years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist II in the stated specialty or a closely related field. Research involved in the completion of the dissertation required for the doctoral degree may be substituted for one year of the required experience.
and
Education: Possession of a master's degree in the stated specialty or in a closely related field.

Or II

Experience: One year of experience in the California state service performing scientific research duties comparable to those of a Research Scientist III in the stated specialty or a closely related field.
and
Education: Possession of a master's degree in the stated specialty or in a closely related field.

Or III

Experience: Two years of progressively responsible research experience in the stated specialty or a closely related field. This experience must have included either: (1) Experience with major responsibility for the design and execution of a complex, highly specialized research project; or (2) Experience in the coordination and direction of a complex and difficult research effort. At least one year of this experience must be at a level of responsibility equivalent to that of a Research Scientist III.
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field.

Research Scientist Supervisor II (Various Specialties)

Either I

Experience: Three years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist Supervisor I in the stated specialty or a closely related field.
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or II

Experience: Two years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist IV in the stated specialty or in a closely related field. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in ~~Public Health or preventive medicine~~ the stated specialty or closely related field may be substituted for one year of the required experience.)
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or III

Experience: Five years of progressively responsible research experience in the stated specialty or a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of a large or highly complex and difficult research, and experience in the development, planning, and operation of multidisciplinary, complex, and difficult research program involving coordination of several groups of disciplines, recruitment and training of personnel, budgeting and accounting of funds, and preparation of major reports and scientific publications. At least three years of this experience must be at a level of responsibility equivalent to that of a Research Scientist Supervisor I.
and
Education: Possession of a doctoral degree in the stated specialty or in a closely related field.

Or IV

Experience: Five years of progressively responsible professional research experience in a field of medical specialization relevant to the stated specialty or a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of complex research, or responsibility for the administration and coordination of large, complex multidisciplinary, or multi-institutional research programs. Two years of approved residency in a medical specialty relevant to the class title may be substituted for one year of the required experience. At least three years of this experience must be at a level of responsibility equivalent to that of a Research Scientist Supervisor I.
and
Education: Possession of the degree of Doctor of Medicine.

Research Scientist Manager (Various Specialties)

Either I

Experience: One year of experience in the California state service performing duties comparable to a Research Scientist Supervisor II.
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or II

Experience: Two years of experience in the California state service performing duties comparable to a Research Scientist V in the stated specialty or in a closely related field. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in ~~Public Health or preventive medicine~~ the stated specialty or closely related field may be substituted for one year of the required experience.)
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or III

Experience: Five years of experience in the California state service performing duties comparable to a Research Scientist IV in the stated specialty, or in a closely related field. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in ~~Public Health or preventive medicine~~ the stated specialty or closely related field may be substituted for two years of the required experience.)
and
Education: Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or IV

Experience: Broad and extensive research or scientific investigation experience (more than five years) in the stated specialty or in a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of a large or highly complex and difficult scientific research, and experience in the development, planning, and operation of multidisciplinary, complex, and difficult scientific research program involving coordination of several groups of disciplines, recruitment and training of personnel, budgeting and accounting of funds, and preparation of major reports and scientific publications. (Possession of a recognized professional Board certification in the stated specialty or closely related field or possession of a master's degree in ~~Public Health~~ the stated specialty or closely related field may be substituted for two years of the required experience.) At least one year of this experience must be at a level of responsibility equivalent to that of a Research Scientist Supervisor II.

and

Education: Possession of a doctoral degree in the stated specialty or in a closely related field.

Or V

Experience: Broad and extensive scientific research experience (more than five years) in a field of medical specialization relevant to the stated specialty or in a closely related field. This experience must have included major responsibility for design, conduct, and analysis of complex scientific research, or responsibility for the administration and coordination of large, complex multidisciplinary, or multi-institutional scientific research programs. Two years of approved residency in a medical specialty relevant to the class title may be substituted for one year of the required experience. At least one year of this experience must be at a level of responsibility equivalent to that of a Research Scientist Supervisor II.

and

Education: Possession of the degree of Doctor of Medicine.

Knowledge and Abilities

Knowledge

All Levels:

Knowledge of: Although all applicants must possess knowledge of the following, it is expected that the level of sophistication, depth, and thoroughness of public health, agricultural, or environmental scientific research knowledge will vary to the class level and scientific specialty: current scientific research literature and trends applicable to the scientific research area; principles and procedures of scientific research planning, design, methodology and analysis; methods of preparation of scientific research reports; scientific statistical methods and procedures; data processing techniques; bibliographic survey or previous related scientific research techniques; determination and qualification of variables and mechanization of compilation of scientific data.

Research Scientist Supervisor I (Various Specialties)
Research Scientist Supervisor II (Various Specialties)
Research Scientist Manager (Various Specialties)

Knowledge of: In addition to the above, principles and practices of effective supervision; a manager's/supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment.

Abilities

All Levels:
Ability to: Although all applicants must demonstrate possession of the following abilities, it is expected that level of attainment will vary relative to the class level: evaluate the adequacy of proposed scientific research designs and techniques; think independently and creatively; establish and maintain cooperative relations with professional staff and with officials of Federal, State, local, university and private research organizations; communicate effectively, prepare scientific articles for publication; prepare scientific reports; provide persuasive and skilled leadership to other staff in scientific research, principles and methods; apply professional scientific knowledge and administrative ability to resolve a variety of situations; analyze situations accurately and take effective action.

Research Scientist I (Various Specialties)
Ability to: All of the above, and participate as a team member of public health, agricultural, or environmental research or scientific investigation projects; make independent decisions in a very limited area of a scientific field; provide information to higher-level scientists in support of decisions on scientific research; interpret scientific findings and present to higher-level scientists; apply established guidelines and scientific techniques.

Research Scientist II (Various Specialties)
Ability to: All of the above, and serve as team leaders on small scientific projects; make independent, difficult decisions in a specific scientific field.

Research Scientist III (Various Specialties)
Ability to: All of the above, and plan, organize, and direct scientific research studies of a highly developed scientific scope and complexity; serve as a team leader for complex public health, agricultural, or environmental research or scientific investigation projects; serve as a consultant to other public health, agricultural, or environmental research scientists; make ~~health~~ scientifically-based ~~scientific~~ decisions within the project scope.

Research Scientist IV (Various Specialties)
Ability to: All of the above, and apply expert scientific knowledge in their stated area of specialty; work independently and develop scientific guidelines and technical procedures; make recommendations to management on scientific health, agricultural, or environmental policy issues.

Research Scientist V (Various Specialties)
Ability to: All of the above, and serve as team leaders for complex scientific research or investigation projects; apply expert knowledge in their stated area of specialty; coordinate research and scientific studies involving other agencies that result in a comprehensive finished scientific product; act as a

subject matter and scientific technical expert; serve as a spokesperson in a scientific area appropriate to the specialty; provide scientific support for the legal, legislative, and regulatory actions that occur in public health, agricultural, or environmental policy development.

Research Scientist Supervisor I (Various Specialties)
Ability to: Perform the abilities identified in the Research Scientist I through III levels, and serve as a direct supervisor and team leader for complex scientific projects; supervise and direct a work unit of professional classes; make scientifically ~~health~~ based ~~scientific~~ decisions within the project scope that may affect department policies.

Research Scientist Supervisor II (Various Specialties)
Ability to: Perform the abilities identified in the Research Scientist IV and Research Scientist Supervisor I levels, and direct and have charge of public health, agricultural, or environmental programs or components, which are of major sensitivity and complexity; make operation planning decisions including budget for staff and related resources; use scientific expertise to plan and direct major public health, agricultural, or environmental research studies; apply expert knowledge in their stated area of specialty; serve as a spokesperson in a scientific area appropriate to the specialty; participate in the development of public health , agricultural, or environmental policy.

Research Scientist Manager (Various Specialties)
Ability to: Perform the abilities identified in the Research Scientist V and the Research Scientist Supervisor II levels, and serve in the top management structure as managers over subordinate Research Scientists at all levels, Research Scientist Supervisors, and other multidisciplinary staff positions; exercise independent scientific judgment in overseeing the conduct of the most complex work of disputed or controversial professional scientific issues; make budgetary and fiscal decisions impacting departmental scientific programs; make scientifically ~~health~~ based decisions that impact general public health, agricultural, or environmental policy; formulate and administer agency policy and program functions.

Desirable Qualifications

All Levels:
In appraising the relative qualifications of candidates, consideration will be given to the extent and type of pertinent training, experience, and research accomplishments for the designated specialty over and above that required under "Minimum Qualifications."

Microbiological Sciences
~~Certified Public Health Microbiologist.~~
Some positions may require the possession of a valid Public Health Microbiologist's certificate issued by the California State Department of Public Health. ~~(Possession of a Baccalaureate Degree with a major in Medical or Public Health Microbiology or equivalent subjects and six months' training in a public health laboratory or the equivalent are required for certification.)~~

Toxicological Sciences

Some positions may require the possession of a valid ~~Research Scientist (Toxicological Sciences) positions may require~~ certification as a Diplomate of the American Board of Toxicology.

Veterinary Sciences

For positions involving the practice of veterinary epidemiology, possession of a master's degree or above in Public Health, epidemiology, or a field of preventative medicine appropriate to the specialty.

For positions involving the practice of laboratory animal medicine, completion of specialty training or board certification in the specialty area beyond the Doctor of Veterinary Medicine degree is desired.

For positions involving the practice of veterinary medicine and surgery, or any branch thereof, a valid license issued by the Board of Examiners in Veterinary Medicine for the State of California to practice as a Doctor of Veterinary Medicine will be required prior to appointment.

Class History

Research Scientist (Various Specialties) Series History - Dates Established, Revised, and Title Changed

Class	Date Established	Date Revised	Title Changed
Research Scientist I (Biological Sciences)			
Research Scientist I (Chemical Sciences)	07/23/2002	--	--
Research Scientist I (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist I (Microbiological Sciences)	07/23/2002	--	--
Research Scientist I (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist I (Social/Behavioral Sciences)	07/23/2002	--	--
~~Research Scientist I (Toxicological Sciences)~~			
Research Scientist II (Biological Sciences)			
Research Scientist II (Chemical Sciences)	07/23/2002	--	--
Research Scientist II (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist II (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist II (Microbiological Sciences)	07/23/2002	--	--
Research Scientist II (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist II (Social/Behavioral Sciences)	07/23/2002	--	--
~~Research Scientist II (Toxicogical Sciences)~~			
Research Scientist III (Biological Sciences)			
Research Scientist III (Chemical Sciences)	07/23/2002	--	--
Research Scientist III (Epidemiology/Biostatistics)	07/23/2002	--	--

Research Scientist (Various Specialties) Series History - Dates Established, Revised, and Title Changed

Class	Date Established	Date Revised	Title Changed
Research Scientist III (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist III (Microbiological Sciences)	07/23/2002	--	--
Research Scientist III (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist III (Social/Behavioral Sciences)	07/23/2002	--	--
Research Scientist III (Toxicological Sciences)			
Research Scientist III (Veterinary Sciences)	07/23/2002	--	--
Research Scientist IV (Biological Sciences)			
Research Scientist IV (Chemical Sciences)	07/23/2002	--	--
Research Scientist IV (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist IV (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist IV (Microbiological Sciences)	07/23/2002	--	--
Research Scientist IV (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist IV (Social/Behavioral Sciences)	07/23/2002	--	--
Research Scientist IV (Toxicological Sciences)			
Research Scientist IV (Veterinary Sciences)	07/23/2002	--	--
Research Scientist V (Biological Sciences)			
Research Scientist V (Chemical Sciences)	07/23/2002	--	--
Research Scientist V (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist V (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist V (Microbiological Sciences)	07/23/2002	--	--
Research Scientist V (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist V (Social/Behavioral Sciences)	07/23/2002	--	--
Research Scientist V (Toxicological Sciences)			
Research Scientist V (Veterinary Sciences)	07/23/2002	--	--
Research Scientist Supervisor I (Biological Sciences)			
Research Scientist Supervisor I (Chemical Sciences)	07/23/2002	--	--
Research Scientist Supervisor I (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist Supervisor I (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist Supervisor I (Microbiological Sciences)	07/23/2002	--	--
Research Scientist Supervisor I (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist Supervisor I (Social/Behavioral Sciences)	07/23/2002	--	--

Research Scientist (Various Specialties) Series History - Dates Established, Revised, and Title Changed

Class	Date Established	Date Revised	Title Changed
Research Scientist Supervisor I (Toxicological Sciences)			
Research Scientist Supervisor I (Veterinary Sciences)	07/23/2002	--	--
Research Scientist Supervisor II (Biological Sciences)			
Research Scientist Supervisor II (Chemical Sciences)	07/23/2002	--	--
Research Scientist Supervisor II (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist Supervisor II (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist Supervisor II (Microbiological Sciences)	07/23/2002	--	--
Research Scientist Supervisor II (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist Supervisor II (Social/Behavioral Sciences)	07/23/2002	--	--
Research Scientist Supervisor II (Toxicological Sciences)			
Research Scientist Supervisor II (Veterinary Sciences)	07/23/2002	--	--
Research Scientist Manager (Biological Sciences)			
Research Scientist Manager (Chemical Sciences)	07/23/2002	--	--
Research Scientist Manager (Epidemiology/Biostatistics)	07/23/2002	--	--
Research Scientist Manager (Food and Drug Sciences)	07/23/2002	--	--
Research Scientist Manager (Microbiological Sciences)	07/23/2002	--	--
Research Scientist Manager (Physical/Engineering Sciences)	07/23/2002	--	--
Research Scientist Manager (Social/Behavioral Sciences)	07/23/2002	--	--
Research Scientist Manager (Toxicological Sciences)			
Research Scientist Manager (Veterinary Sciences)	07/23/2002	--	--