U.S. Office of Personnel Management
Office of Merit Systems Oversight and Effectiveness
Classification Appeals and FLSA Programs

Washington Oversight Division
1900 E Street, N.W.
Washington, DC 20415

Classification Appeal Decision
Under Section 5112 of Title 5, United States Code

Appellant:	[name]
Agency classification:	Research Physiologist GS-413-13
Organization: [laboratory]	Beltsville Human Nutrition Research Center Beltsville Area Agricultural Research Service Department of Agriculture Beltsville, Maryland
OPM decision:	Research Physiologist GS-413-14
OPM decision number:	C- 0413-14-01

Richard Quasney
Classification Appeals Officer

4/13/99

Date

As provided in section 511.612 of title 5, Code of Federal Regulations, this decision constitutes a classification certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and accounting officials of the Government. The agency is responsible for reviewing its classification decisions for identical, similar, or related positions to ensure consistency with this decision. There is no right of further appeal. This decision is subject to discretionary review only under the conditions and time limits specified in title 5, Code of Federal Regulations, sections 511.605, 511.613, and 511.614, as cited in the Introduction to the Position Classification Standards, appendix 4, section G (address provided in appendix 4, section H).

Since this decision changes the grade of the appealed position, it is to be effective no later than the beginning of the fourth pay period after the date of this decision. The servicing personnel office must submit a compliance report containing the corrected position description and a Standard Form 50 showing the personnel action taken. The report must be submitted within 30 days from the effective date of the personnel action.

Decision sent to:

[appellant]

Mr. Roger L. Bensey
Director, Office of Human
Resources Management
Department of Agriculture
Washington, D.C. 20250

Mr. James Bradley
Director, Human Resources Division
Agricultural Research Service
5601 Sunnyside Avenue
Room 3-1143
Beltsville, Maryland 20705-5101

Introduction

On October 19, 1998, the Washington Oversight Division of the U.S. Office of Personnel Management (OPM) accepted a position classification appeal from [appellant], who is employed as a Research Physiologist, GS-413-13, in the [laboratory] of the Beltsville Human Nutrition Research Center, in the Beltsville Area of the Agricultural Research Service (ARS), Department of Agriculture, in Beltsville, Maryland. [Appellant] requested that his position be classified as Research Physiologist, GS-413-14. This appeal was accepted and decided under the provisions of section 5112 of title 5, United States Code.

An on-site position audit was conducted by a Washington Oversight Division representative on December 7, 1998, including an interview with the appellant's first-line supervisor, [name], and supplemented by a follow-up telephone interview with the appellant on January 21, 1999. This appeal was decided by considering the audit findings and all information of record furnished by the appellant and his agency, including his current research information statement (CRIS), a listing of citations of his work, his official position description, number 1B4021, and its accompanying research evaluation case submission. In addition, telephone interviews were conducted during the period of January 6 - February 10 with a number of scientists familiar with various aspects of the appellant's research.

General Issues

The appellant's position was reviewed by an ARS research position evaluation committee on July 29, 1998. The panel evaluated his position at the GS-13 level, thus keeping the appellant in grade. The appellant disagrees with the scoring for Factors II, III, and IV.

Position Information

The appellant is responsible for the identification and investigation of factors relating dietary energy sources and physical or lifestyle characteristics of individuals to the maintenance of a healthy weight and prevention of obesity. He is the lead scientist in the laboratory responsible for research with human subjects and animal models on factors that influence energy expenditure and substrate utilization, voluntary food intake, energy balance, and the availability of dietary energy. He currently supervises one GS-9 Biological Technician.

Series Determination

The appellant's position is properly assigned to the Physiology Series, GS-413, which covers positions involved in the performance of research or other scientific work in the field of human and animal physiology. Neither the appellant nor the agency disagrees.

Title Determination

The appellant's position is correctly titled as Research Physiologist. Neither the appellant nor the agency disagrees.

Standard Determination

The appellant's position was evaluated by application of the Research Grade-Evaluation Guide (RGEG), dated October 1967, which is used across series lines to determine the grade levels of research positions. Part I of the RGEG is used to evaluate positions at GS-11 through GS-15 that are engaged in basic or applied research in the sciences, when the functions involve the personal performance, as the highest level function and for a substantial portion of the time, of professionally responsible research. Part I includes four factors that are considered and rated separately, with the total point value then being converted to a grade level by use of the grade conversion chart provided in the RGEG.

Each factor is evaluated at one of five degree levels. Three of these levels (A, C, and E) are defined in the RGEG. An intermediate level (B or D) may be assigned when a position is evaluated between levels A and C or levels C and E, respectively.

Grade Determination

Factor I: Research Situation or Assignment

This factor deals with the nature, scope, and characteristics of the studies being undertaken by the employee. It is intended to reflect the situation or assignment in the current job, rather than a summation of the employee's assignments over a long period of time. The ARS peer panel rated this factor at Degree D. The appellant agrees with this rating.

At Degree C, the scientist is responsible for formulating and conducting a systematic research attack on a problem area of considerable scope and complexity. Problems of this scope must be approached through a series of complete and conceptually related research studies carried out by the scientist or by a team led by the scientist. Complexity is such that problems are typically difficult to define, require unconventional or novel approaches, require sophisticated research techniques, and/or present features of more than average difficulty. Research studies of this scope will result in a series of publishable contributions to the knowledge that will: (1) answer important questions in the scientific field, account for previously unexplained phenomena, and/or open significant new avenues for further study; (2) represent an important contribution to the validation or modification of scientific theory or methodology; (3) result in important changes in existing products, processes, techniques, or practices; and/or (4) be definitive of a specific topic area.

The difficulty and complexity of the appellant's research meet or exceed Degree C. The appellant's current independent research involves exploration of the relationship between substrate intake and utilization (i.e., dietary composition and the varying rates at which fats, carbohydrates, and proteins are burned as fuel or stored as body mass), and voluntary food intake and energy balance. The data thus generated will be utilized in the development of a mathematical model to define the parameters describing the relationship of substrate storage and fuel selection to food intake. By measuring the rate at which carbohydrates are oxidized in relation to fat and protein oxidation, and assuming that

neuro-endocrine signals reflect the status of fuel management, this model will theoretically predict the level at which a decrease in dietary carbohydrate stores triggers a compensatory increase in food intake. The appellant is also engaged in collaborative research with the National Institutes of Alcohol Abuse and Alcoholism (NIAAA) designed to determine the caloric contribution of alcohol to human body mass and its energy value, i.e., the degree to which it provides useful calories in the human diet or is burned as fuel. This work is of a greater level of difficulty than expressed at Degree C, where problems are described as being of more than average difficulty and require approaches that are merely unconventional or novel. In contrast, the appellant's work is of a considerable level of difficulty since results are dependent on small changes in a wide range of variables related to energy expenditure, such as dietary intake, body composition, activity level, basal metabolic rate, physiological state, environmental conditions, and as-yet undefined genetic factors.

Three types of research situations are described at Degree E. The first situation ordinarily involves leadership of a team conducting applied research, and the third situation necessarily involves team leadership. In either case, the appellant's role is not considered to meet the intent of the RGEG in its discussion of team leadership responsibilities. The appellant formally supervises one technician who performs principally support work rather than independent research. Although the appellant acts as principal investigator on some collaborative projects, thereby receiving first authorship on any resultant publications, such arrangements are common to scientific endeavor and do not constitute the type of formalized, continuous team leadership, including attendant administrative and management responsibilities, intended in the first and third situations.

The second Degree E situation (which does not include team leadership) involves responsibility for attacking basic research problems which have been recognized as exceptionally difficult and unyielding to research analysis so that their solution would represent an advance of great significance.

The appellant's current research areas are not considered to be exceptionally difficult to the point that they have been unyielding to research analysis. His independent research may be characterized as novel, representing an extension of his continuing work in energy metabolism, rather than an area where a level of exceptional difficulty has been demonstrated through many previous unsuccessful research attacks. His collaborative research, particularly that related to the energy value of alcohol, likewise represents an expansion and refinement of other earlier descriptive research (which yielded inconclusive results) rather than the type of unyielding problem resolution intended at Degree E. The term "great significance" is not defined in the RGEG, but it would involve an advance significantly beyond that described at Degree C, which includes accounting for previously unexplained phenomena, opening significant new avenues for further study, or contributing in an important way to validating or modifying scientific theory. The appellant's research at this time does not go beyond these Degree C characteristics, in that its potential impact is to further understanding of the role of energy metabolism in human weight maintenance. Viewed from a broad perspective, despite some recent breakthroughs in the field of obesity research, there has been limited progress in the development of any practical approaches to maintaining weight at a healthy level. However, although extensive research by others has yet to fully answer certain basic questions related to the mechanisms of weight maintenance, the appellant's immediate assignment is only tangentially associated with these difficult

and intractable problems. It may generate information relating to the sources of dietary energy and rates of energy expenditure, basic research that will undoubtably provide valuable input in addressing these broader problems. However, the actual significance of the appellant's current work would be best characterized as contributory rather than seminal. Therefore, because Degree C is exceeded in relation to the difficulty and complexity of the research, but no aspects of Degree E are met, the intermediate Degree D is credited for this factor.

Evaluation: Degree D 8 points

Factor II: Supervision Received

This factor deals with the supervisory guidance and control exercised over the researcher in the current job situation. The ARS peer panel rated this factor at Degree D. The appellant contends that his position should be rated at Degree E.

At Degree C in basic research, the scientist has substantial freedom to identify, define, and select specific problems for study, being responsible for determining what appear to be the most fruitful investigations and approaches to the problem area. The researcher is responsible, with little or no supervisory assistance, for formulating hypotheses, for developing and carrying out the plan of attack, for coping with novel and difficult problems requiring modification of standard methods, for analyzing and interpreting results, and for preparing comprehensive reports of findings. The supervisor is kept informed, through occasional discussions, of general plans and the progress of the work. The supervisor approves plans which call for considerable investments of time or equipment and is responsible for final decisions concerning direction of the work and changes in, or discontinuance of, important lines of investigation. The researcher has full responsibility for decisions regarding the use of equipment and other resources, and his completed work and reports are reviewed principally to evaluate overall results.

The appellant's level of supervision received fully meets Degree C and exceeds it in some respects. As at that level, within the broad objectives of the laboratory's mission, the appellant is free to select his specific areas of research, to determine the methodologies to be employed, and to interpret and report the results. However, he works with somewhat more independence than is expressed at that level regarding the direction of the research, and his work is accepted by the supervisor as technically accurate and is reviewed primarily through the peer review process.

At Degree E, technical supervision is nominal and consultative. The researcher works under broad administrative supervision, which is generally limited to approval of staffing, funds, and facilities, and to broad agency policies. Within the framework of management objectives, priorities, and pressures for results, the researcher is expected to locate and explore the most fruitful areas of research in relation to the agency's program needs and the state of the science involved; to take complete responsibility for formulating research plans and hypotheses and for carrying them through to completion; and to take full and final technical responsibility for interpreting findings, including interpreting their applicability to activities and interests of the agency, and their broader applicability

to basic scientific methodology. Within the agency, these interpretations are accepted as technically authoritative and become the basis for necessary administrative action.

The appellant approaches this level in that he works under broad administrative supervision, and technical supervision is primarily consultative in nature. His immediate supervisor reported that the appellant's work is technically reliable and that he reviews the appellant's manuscripts primarily for information purposes. However, the appellant does not have the latitude to select his overall area of research in relation to the agency's program needs, but rather selects the specific problem areas and lines of inquiry on which he will concentrate, within his primary area of interest, as is characteristic of Degree C. He takes complete responsibility for formulating his research plans and hypotheses and for carrying them through to completion and takes full technical responsibility for interpreting findings, as would be expected at Degree E. However, that degree level includes the additional criteria that the scientist have some recognition within the agency as a technical authority within his research area, such that his work compels the agency to respond administratively to his research conclusions or progress. For example, this may include the agency assigning significant additional resources to the scientist's work, redirecting broader agency efforts to support or complement his research, or appointing the scientist to head important committees or serve as a spokesperson or expert witness in extra-agency dealings. Although the appellant is recognized among his peers as an expert in the areas of energy metabolism and calorimetry, there is no evidence that he has garnered this degree of administrative support within his agency. Therefore, because Degree C is fully met and somewhat exceeded, and some aspects of Degree E are met, the intermediate Degree D is credited for this factor.

Evaluation: Degree D 8 points

Factor III: Guidelines and Originality

This factor deals with the creative thinking, analyses, syntheses, judgment, resourcefulness, and insight that characterize the work performed by the employee in the current job situation. The ARS peer panel rated this factor at Degree C. The appellant contends that his position should be rated at Degree D.

At Degree C in basic research, available guidelines and precedents are limited in usefulness or may be largely lacking because of the novel character of the work being done. A high degree of originality is required in defining problems which are very elusive and/or highly complex, in developing productive hypotheses for testing, in identifying significant problems for study, in developing important new approaches, methods, and techniques, and in interpreting and relating the significance of results to other research findings.

The appellant's current research is primarily basic. Within this context, the availability of guidelines and the originality required in the appellant's work meet Degree C. As was noted in the peer review report, there are limited reliable precedents addressing the relationship between energy intake and

specific substrate utilization. Originality is required in designing studies that can reliably measure very small changes in metabolic variables where large individual variations exist for those variables.

At Degree E, originality is represented by creative extension of existing theory or methodology, or significant contribution to the development of new theory or methodology which is of such scope as to supplant or add new dimensions to a previous framework of theory or methodology. Alternatively, Degree E originality (particularly in applied research) may be represented by responsibility for applying a very high degree of imagination and creativity in the solution of problems of marked importance (for example, to the scientific field, to national defense, to health, to major segments of the national economy) for which there is an almost complete absence of applicable guidelines, pertinent literature, and methodology.

The distinction between Degrees C and E relates primarily to the manner in which originality is expressed. Degree C focuses on the creativity, analysis, and insight required to define the research problem, and to develop the approaches, methods, and techniques to carry out the work. There is no question that the appellant's research fully meets that level. Degree E, however, includes the additional element of results, i.e., the contributions made to the scientific field in the form of new theories and methodologies that are developed during the course of the work. To fully meet Degree E, the research must have gone considerably beyond Degree C to extend or develop theory or methodology to the extent that existing theory or methodology is replaced or significantly altered.

Although the appellant's research may <u>potentially</u> approach this level, the work cannot be credited at this time. Specifically, a number of scientists with whom we spoke commented that the appellant's ongoing work on the energy availability of alcohol is expected to resolve a long-standing controversy in the field of alcoholism research. It is addressing a fundamental question that may very well challenge the credibility of many precedent epidemiological studies. The relevance of this issue is very high in that the implications may be related to the causative factors for alcoholism or liver disease. However, because this work is currently underway and the issue cannot be considered definitively settled, it would be premature to credit this level of impact.

Evaluation: Degree C 6 points

Factor IV: Qualifications and Scientific Contributions

This factor measures the total qualifications, professional standing and recognition, and scientific contributions of the researcher, insofar as these bear on the dimensions of the current work situation and work performance. It is given twice the weight of the other factors. The RGEG instructs that although the total history of accomplishment is to be considered under this factor, recent research is essential to full credit for past accomplishments. The ARS peer panel rated this factor at Degree C. The appellant contends that his position should be rated at Degree D.

At Degree C, the researcher has demonstrated his ability as a mature, competent, and productive worker and will typically have authored one or more publications of considerable interest and value

to the field (as evidenced by favorable reviews, by citation in the work of others, by presentations of papers to professional societies, etc.), and/or will have contributed inventions, new designs, or techniques which are of material significance in the solution of important applied problems. Contributions at this level derive from highly productive (in terms of both quantity and quality) personal performance of research of such originality, soundness, and value as to have marked him as a significant contributor to his field.

The appellant's first notable accomplishment was the design and construction of the laboratory's room-sized direct/indirect calorimeters, representing two of the few such facilities in the world. He has been the principal researcher for virtually all studies utilizing this resource over its subsequent twelve years of operation. This has led to authorship of several publications that have attracted the interest of other researchers and that have marked him as a significant contributor to his field. The most frequently cited work in our contacts with other researchers was his work related to metabolic adaptation to dietary restriction (accomplishment #5); his work demonstrating the interaction of dietary fat and fiber content (accomplishment #7); and his most recent work related to the utilization of alcohol as a dietary energy source (accomplishment #8). All of this work has demonstrated the appellant's ability as a mature and competent researcher, fully consistent with Degree C.

Researchers at this level are beginning to be sought out for consultation by colleagues who are professionally mature researchers. The RGEG speaks of "emerging recognition" in the field at Degree C. The appellant's level of professional recognition fully meets and somewhat exceeds this criteria. He has been an invited speaker at several symposiums and conferences dating back to 1992, received three invitations to chair sessions at meetings of professional societies in the early 1990's, serves as reviewer for three refereed journals, and has held committee assignments in his professional area. Within ARS, he was asked to prepare a chapter on the impact of moderate alcohol consumption on risk factors for chronic disease for the 2000 Dietary Guidelines Briefing Book, and was detailed to the Food and Drug Administration in 1993 to participate in the scientific assessment of the non-caloric fat substitute Olestra. He currently has three collaborative research projects underway, with the National Institutes of Alcohol Abuse and Alcoholism, the National Institute on Aging, and the University of Maryland, following earlier (mid-1990's) collaborations with the Naval Medical Research Institute, the Lincoln Park Zoological Parks, and the Smithsonian National Zoological Park. Thus, the appellant exceeds this aspect of Degree C to some extent in that he has had an established reputation in the calorimetry community for some time, as opposed to the just-emerging recognition typical of this level. However, there are certain considerations that temper this assessment. The appellant's formal consultant and advisory activities have not been extensive, and he has provided no evidence that he is informally consulted by other researchers with any degree of frequency. Citations of his work are not particularly frequent and have occurred at a relatively constant rate over the past ten years, showing no steady increase or isolated periods of significantly heightened interest on the part of other researchers. His work is recognized by his peers as being of uniformly high quality, but would not be considered as highly productive in terms of quantity as is normally expected at Degree C. These weakening elements mitigate those limited aspects of the appellant's case that exceed Degree C.

At Degree E, the researcher has demonstrated outstanding attainment in a broad, or in a narrow but intensely specialized, field of research. He will typically have authored a number of important publications, of which at least some have had a major impact on advancing the field, or are accepted as definitive of important aspects of it, and/or he will have contributed inventions, new designs, or techniques which are regarded as major advances in basic or applied research, and which have opened the way for extensive further developments, or have solved problems of great importance to the scientific field, to the agency, or to the public. The appellant's work does not yet approach this level of accomplishment and impact. Although the appellant has authored a number of publications of interest to other scientists in his field, there is no indication that these publications have as yet had a major impact on advancing the field or are regarded as definitive of important areas of it. Among the scientists we consulted who are familiar with the appellant's work, most described his studies as interesting, well-designed, and solidly executed, but considered the findings to be contributory to a larger body of knowledge rather than as seminal in the understanding of the causative factors of obesity or the mechanisms of weight maintenance.

Another limiting factor in the appellant's case is the absence of any major new inventions, designs, or techniques that can be credited to him. The appellant adapts and refines methodologies and techniques developed by other researchers for application to his work, but has contributed no new inventions, techniques, or devices. For example, the laboratory's calorimeters designed by the appellant were not prototypes but were adaptations of others. Although the appellant's studies require careful and refined technique, the types of measurements performed are in no way unusual or unique to the field.

The Degree E researcher is sought as a consultant by colleagues who are specialists in his field, and speaks authoritatively regarding his field in contacts within and outside the Government. Invitations to address national professional organizations, and recognition in the literature of his field through favorable reviews and numerous citations by others, are further typical evidences of attainment. The appellant's advisory and consulting activities and his level of professional recognition do not meet or approach this level. The appellant has provided no evidence that he is routinely sought as a consultant by other researchers (e.g., that he receives requests from other scientists to study in his laboratory or to assist them in the application of particular techniques.) Much of his collaborative work involves the provision of calorimetry support for studies conceived and designed by others. Invitations to address or chair sessions at meetings of professional associations are not as frequent as would be expected at Degree E. In fact, a recurring observation of several of the scientists with whom we conferred was that the appellant is not particularly active or participatory in the scientific community, to the point where many were unfamiliar with his more recent work. Citations of his work are respectable but not extensive. Thus, since Degree C is not exceeded and no aspect of Degree E is met, Degree C must be credited for this factor.

Evaluation: Degree C 12 points

Summary

Factor evaluations and points assigned are as follows:

I. Research Situation or Assignment
Degree D: 8 points

II. Supervision Received
Degree D: 8 points

III. Guidelines and Originality
Degree C: 6 points

IV. Qualifications and Scientific Contributions
Degree C: 12 points

The total of 34 points falls within the gap between the point ranges assigned for GS-13 (26-32 points) and GS-14 (36-42) on the grade conversion chart provided in the RGEG.

The RGEG instructs that such "borderline" positions should be assigned to either the higher or lower of the two grades in accordance with a judgment determination based on aspects of the position which may not have been fully considered in arriving at the point values, and in consideration of best alignment with other properly classified positions. Because of the comprehensive nature of the RGEG, encompassing not only current assignments but also the complete body of a researcher's work, and in addition, to a certain degree, potential impact (as in Factor 1, where expected results may be considered), aspects considered in the resolution of borderline situations will frequently be related to one or more of the factors.

In resolving the borderline point value credited to the appellant, we looked closely at Factor III. Although the appellant's current work was credited at Degree C for this factor, it was recognized that his ongoing work on the energy availability of alcohol may potentially exceed this level. This supposition is not based on a presumption of results that are as yet unachieved, but rather on the design and breadth of the study, which can reasonably be expected to settle the issue of the energy value of alcohol. This collaborative study with NIAAA is regarded by that organization as having a high degree of importance in explaining the basis for some of the health consequences of alcoholism. It represents a level of impact that easily exceeds that which would be normally expected at Degree C. Likewise, a number of scientists with whom we consulted regarded the appellant's recent and ongoing work on alcohol metabolism to be his most interesting and probably most significant, thus suggesting that his research is moving into a somewhat stronger area in terms of its grade value. While these considerations alone would not be sufficient to influence the actual degree assignments for the various factors, in a borderline situation such as this they constitute the necessary strengthening factors to resolve the grade upward to GS-14.

Decision

The appealed position is properly classified as Research Physiologist, GS-413-14.