

PROGRAM CONTACT:
LAYLA ESPOSITO
(301) 435-6888
espositl@mail.nih.gov

SUMMARY STATEMENT
(Privileged Communication)

Release Date: 03/29/2018
Revised Date:

Application Number: 1 F32 HD096829-01

THOMAS,ASHLEY
University of California, Irvine
3151 Social Sciences Plaza
Irvine, CA 926975100

Review Group: ZRG1 F16-E (20)
Center for Scientific Review Special Emphasis Panel
Fellowships Overflow: Risk, Prevention and Health Behavior
Meeting Date: 03/09/2018
Council: MAY 2018 **PCC:** CDBB -LE
Requested Start: 07/01/2018

Dual IC(s): MH

Project Title: Finding our social circle: How infants use the affiliations of their caregivers to evaluate others.

Requested: 3 Years

Sponsor: SPELKE, ELIZABETH S
Department: Psychology
Organization: HARVARD UNIVERSITY
City, State: CAMBRIDGE MASSACHUSETTS

SRG Action: Impact Score:25 Percentile:13 &
Next Steps: Visit https://grants.nih.gov/grants/next_steps.htm
Human Subjects: 30-Human subjects involved - Certified, no SRG concerns
Animal Subjects: 10-No live vertebrate animals involved for competing appl.
Gender: 1A-Both genders, scientifically acceptable
Minority: 1A-Minorities and non-minorities, scientifically acceptable
Children: 2A-Only Children, scientifically acceptable

1F32HD096829-01 Thomas, Ashley

RESUME AND SUMMARY OF DISCUSSION: This application requests support for training in social cognitive neuroscience and research that focuses on determining fundamental social motivations in infants. In discussion, the reviewers emphasized application strengths of a well-trained investigator with a clear commitment to social cognition research and superb letters of support. The mentoring team is highly credentialed, well-funded, and has a solid track record of mentorship, but it lacks expertise in research methodology and developmental disabilities or psychopathology. This research project is innovative in its measurement of brain activity. It connects nicely to the investigator's background, as she is ready to expand her work to infants. Concerns were raised, however, by the lack of preliminary data, insufficient discussion of replicability issues, and the choice not to do longitudinal studies. The training goals are reasonable, but the panel questioned how this training would be different from past training other than studying the infant group. Overall, the application strengths outweighed these concerns.

DESCRIPTION (provided by applicant): Human infants are faced with the challenge of learning about and engaging in their social world, including who belongs to their social in-group. Infants can infer social relationships by observing social interactions of others. For example, infants infer affiliation between novel individuals who speak the same language, synchronize movement, imitate each other, or comfort the same individual (Lieberman, Woodward, and Kinzler, 2017; Powell and Spelke, 2018; Spokes and Spelke, 2017). However, little is known about how infants apply these inferences to interactions they see in their own social environment. For example, do infants pay attention to whom their caregivers affiliate with? Moreover, there remains several outstanding questions about infant's perceptions of social interactions. For example, infant's inferences about imitation are asymmetric—although 4 and 5-month-olds expect that an imitator will approach the individual they imitated, they do not expect an individual who was imitated to approach the person who imitated them. Likewise, although infants prefer those who imitate; they do not prefer those who are imitated (Powell, Spelke, 2018). This could be because infants only represent 'social actors'—the individuals who perform social actions—and not 'social targets'—the individuals whom social actions are directed toward. Or, it could be that infants prefer good candidates for affiliative partners, and that being imitated by a stranger is not informative to that end. After all, a person could be imitated without reciprocating or even noticing. In the current application three hypotheses are tested 1) Infants use their caregivers as 'references' when evaluating new people, preferring those who are affiliated with their caregivers 2) Infants can represent targets of affiliative social actions, but only prefer them if the infants know the social actor 3) Infant's get 'social value' from looking at or interacting with those who are affiliated with their caregivers. Preference will be measured through looking time and reaching. fNIRS (functional near-infrared spectroscopy) will be used to investigate whether infants' preferences reflect a feeling of 'social value' as opposed to curiosity or interest. Specifically, activation in the MPFC (medial prefrontal cortex) which is associated with social value in adults, will be compared to activation in the LPFC which is associated with processing novel information in adults. To sum, these studies will investigate a fundamental human social motivation—to find and affiliate with those in one's immediate social in-group. These studies will help us understand how children develop in-group biases, especially those found only in later childhood such as racial biases. Moreover, understanding the typical developmental trajectory of these social motivations will help us understand populations with atypical social development such as those with autism spectrum disorder.

PUBLIC HEALTH RELEVANCE: Every human infant faces the challenge of learning about their specific social environment, including who belongs to their social in-group. The current application investigates whether infants do this by observing who is affiliated with their caregivers. This work will elucidate fundamental social motivations involved in the development of in-group attitudes, especially those that develop later in childhood such as racial biases, and will add to our understanding of atypical social development.

CRITIQUE 1

Fellowship Investigator: 4

Sponsors, Collaborators, and Consultants: 2

Research Training Plan: 4

Training Potential: 3

Institutional Environment and Commitment to Training: 1

Overall Impact/Merit: This is a carefully planned application that will training the investigator in the area of social cognition among infants in an outstanding laboratory that is supervised by two very accomplished mentors. The study will examine whether infants develop social environments by observing those who are affiliated with their caregivers. Specifically, the work will allow for the examination of in-group attitudes that will enable our understanding of atypical social development. The investigator has had a history of outstanding training in the area of social cognition and children. There are realistic goals for the training program and the investigator's career goals are in line with the fellowship training goals. While the investigator lists few published reports in high impact journals, she has presented her work at a number of scientific meetings. While few in number, sponsors are clearly outstanding and have a superb track record and a great portfolio of funding that will provide the investigator with rich training opportunities as a fellow. While a bit limited, the training fellowship is clearly rich. Some expertise in the area of developmental disabilities or psychopathology might enhance the program and the specific goals of the program. Some expertise in the area of policy studies also would be recommended given the investigator's interest in communicating the findings and implications of her work to the lay audience. Further, some expertise in the area of quantitative methodology and statistics would seem to be important. The research training program will extend the investigator's training of the understanding of children's hierarchical relationships to basic social cognition where to date there has been a dearth of literature. The examination of age-related changes is a particular strength of the application and will add much to the theory of social cognition, although it is unclear as to why the investigator is not employing a longitudinal design to investigate the developmental aims of the study. The investigator has proposed several important modalities by which training will take place, although it is actually not entirely clear as to how the current fellowship will offer the investigator training beyond the outstanding training that she has already received at the University of California-Irvine in a similar area. Finally, the investigator's institution is unparalleled with regard to commitment to scholarly activities and research.

1. Fellowship Investigator:

Strengths

- Investigator has outstanding training at the University of California-Irvine and has had excellent mentorship in the area of social cognition as this impacts development.
- Letters of support on behalf of the investigator from the faculty at the University of California-Irvine have noted that the investigator has great intellectual capacity and that she is extremely creative and an original thinker.
- The investigator has realistic goals for the fellowship training and her ultimate career aspirations are to be employed at a Research I institutions where she is engaged in a program of research. Thus, the training goals that the investigator has outlined are appropriate and realistic.

Weaknesses

- Investigator lists few published reports. The majority of her scholarly writings have been at conferences and other societies.

- Investigator has little experience in the preparation of grant applications, although she has been a collaborator of an R01 application.

2. Sponsors, Collaborators, and Consultants:

Strengths

- The investigator has assembled a group of sponsors that is beyond comparison. All hold an impressive portfolio of grant awards that will provide the investigator with excellent resources from which to attain fellowship training.
- The investigators have impeccable credentials to supervise the investigator in her fellowship program and more importantly are especially motivated to mentor the investigator in her research program.
- Dr. Spelke has an ongoing track record of mentoring students who have gone on to become distinguished scientists having very outstanding careers in their own right. This would suggest that she will be an effective mentor for the investigator.

Weaknesses

- The investigator has restricted her sponsorship to two cognitive/developmental psychologists who have impeccable credentials. However, the investigator has failed to identify other sponsors who might lend expertise to some of the other areas that she is considering including developmental disabilities (e.g., autism spectrum disorders) and psychopathology. That she wishes to later collaborate with other behavioral scientists who are interested in clinical psychology, anthropology and other fields would suggest that she should organize a group of sponsors that is broader than that which she has already identified. Further, that she wishes to communicate her findings to the broader public suggests that she is interested in issues pertaining to policy studies and sponsorship in this area also is warranted.
- Given some of the complex design issues and statistical analysis, some consideration might be given to having a quantitative methodologist as a sponsor.

3. Research Training Plan:

Strengths

- The proposed training plan will extent the investigator's training on understanding children's hierarchical relationships to basic social cognition among infants where there is a dearth of literature and where the methodology differs than for children and adolescents.
- The investigator will receive training in the neurosciences and specifically fNIRS and theory building in this literature.
- The investigator will have an opportunity to interface across areas of social psychology, neuropsychology and the neurosciences which is especially innovative.
- The investigator has delineated a meticulous time-line that will prepare her for establishing a social-cognitive neurosciences laboratory, course work to achieve the desired program objectives, data collection, presentation at national meetings, publication of the data and their findings and finally preparation of future grant applications.
- The project aims of the investigation are well-founded and carefully couched within the extant literature.
- The examination of age-related changes appears to be a particular strength of the investigation by examining infants who are four-months of age versus those who are 1-year of age.

Weaknesses

- The use of puppets rather than humans as a means of comforting caregivers seems to be questionable and has not entirely been justified. It is actually unclear as to why humans are not being employed for this part of the investigation.
- It is unclear as to why one cohort is not being studied longitudinally whereby the same cohort of infants can be followed longitudinally over the course of time. This would enable the specific hypotheses to be tested without extraneous variance produced by different cohorts of participants.

4. Training Potential:

Strengths

- The investigator has proposed several important modalities by which training will take place including mentorship training, meetings, course work, research and professional development. All of these modalities will provide important training opportunities for the investigator.
- Coursework that will be employed to augment training will be outstanding and will include courses in computational sciences from both MIT and Harvard.
- The various components of the training program including the hiring and training of research assistants, presentation of study designs at laboratory meetings demonstrate the detail of the training program that hopefully will lead to a rich training experience.

Weaknesses

- There are questions as to how the current fellowship will offer the investigator training beyond the outstanding training that she has already received at the University of California, Irvine.
- While the detailed components of the training program including the hiring and training of research assistants, presentation of study designs at laboratory meetings demonstrate that the training program potentially will be rich, there is concern about the elementary nature of such training and that it might in fact be duplicative of graduate level training. The investigator has really failed to demonstrate that the fellowship extends beyond graduate level training and represents actual fellowship level training.

5. Institutional Environment and Commitment to Training:

Strengths

- The investigator institution is unparalleled with regard to a commitment to scholarly activities and research. The investigator has assembled an excellent group of sponsors that will provide her with excellent training with infants to investigate social cognition among infants.
- The laboratories and facilities will be outstanding which will allow the investigator to be especially productive in conducting a program of research.
- The facilities at Harvard are likely to be outstanding, although there is little detail provided with regard to the detail of these facilities including access to subjects, statistical support and consultation, etc.
- The McGovern Institute for Brain Research and the Laboratory for Developmental Studies and the Department of Psychology at Harvard which will provide space for neuroimaging studies, testing rooms, and a pediatric recruitment and research coordinator undoubtedly will lend support to the conduct of the fellowship, data collection as part of the research project and to the success of the general training program.

Weaknesses

- While it is recognized that facilities are likely to be outstanding, there is no detail provided with regard to these facilities, access of these facilities to post-doctoral fellows, access of library resources and statistical consultation.

Protections for Human Subjects:

Acceptable Risks and Adequate Protections

- The proposed investigation will examine 190 typically-developing infants who range in age from four-months to one-year. Identifiable data will be video recordings and risks to participants are deemed to be minimal. Infants participating in the investigation will be watching the videos and parents and caregivers are provided with a full explanation of the study. There are clear benefits of the proposed research to participants as well as to others as the caregivers frequently learn about their infant's development. A staff member from the laboratory will be present at all times and loss of confidentiality is the greatest risk. However, all data and forms will be secured on password protected computers or hard copies of source documents will be locked in file cabinets.

Data and Safety Monitoring Plan (Applicable for Clinical Trials Only):

Not Applicable (No Clinical Trials)

- This is not a controlled clinical trial and hence a data safe and monitoring board is not necessary for the purpose of data collection.

Inclusion of Women, Minorities and Children:

- Sex/Gender: Distribution justified scientifically
- Race/Ethnicity: Distribution justified scientifically
- For NIH-Defined Phase III trials, Plans for valid design and analysis: Not applicable
- Inclusion/Exclusion of Children under 18: Including ages <18; justified scientifically
- The study will include both males and females which are approximately evenly distributed among the infant population. There will be a distribution of African American, Asian, American Indians and Hispanic infants which is in accord with the geographic region in which the data are being collected.

Vertebrate Animals:

Not Applicable (No Vertebrate Animals)

Biohazards:

Not Applicable (No Biohazards)

Training in the Responsible Conduct of Research:

Unacceptable

Comments on Format (Required):

- The investigation does not address training in the responsible conduct of research which is unacceptable. Thus, the format with regard to training is not addressed.

Comments on Subject Matter (Required):

- The investigation does not address training in the responsible conduct of research which is unacceptable. Thus, the subject matter is not addressed.

Comments on Faculty Participation (Required):

- The investigation does not address training in the responsible conduct of research which is unacceptable. Thus, faculty participation is not addressed.

Comments on Duration (Required):

- The investigation does not address training in the responsible conduct of research which is unacceptable. Thus, duration of training is not addressed.

Comments on Frequency (Required):

- The investigation does not address training in the responsible conduct of research which is unacceptable. Thus, frequency of training sessions is not addressed.

Budget and Period of Support:

Recommend as Requested

- Budget appears to be reasonable given the goals and objectives of the application.

CRITIQUE 2

Fellowship Investigator: 1

Sponsors, Collaborators, and Consultants: 1

Research Training Plan: 2

Training Potential: 1

Institutional Environment and Commitment to Training: 1

Overall Impact/Merit: This is an outstanding investigator who is highly motivated to become the expert on how infants develop mental representation of social relationships and how developmental trajectories may differ by culture or social environments.

1. Fellowship Investigator:

Strengths

- Ashley Thomas is an outstanding investigator with a stellar educational and research background. Experience included research assistant positions at UC Davis, where she learned how to conduct research with infants, how to design experiments, and how to analyze data. Ph.D. at UC Irvine. She has one publication.
- Became interested in how people understand social norms during her 5 years teaching students with ASD.
- During PhD at UC Irvine, investigated how children learn and think about social relationships and how adults think about people.
- On her way to becoming an independent investigator.
- Strong background in cognitive and social development.

Weaknesses

- None noted.

2. Sponsors, Collaborators, and Consultants:

Strengths

- Prof Spelke at the Laboratory for Developmental Studies (LDS) at Harvard has trained 51 total graduate students and postdoctoral students.
- Prof Saxe at the McGovern Institute at MIT has trained 17 graduate students.
- Mentors are enthusiastic about Ashley.

Weaknesses

- None noted.

3. Research Training Plan:

Strengths

- Overall training plan – Coordinated and complementary co-mentors at Harvard and MIT. Beautifully tabulated training plan. 75-80% research. 10-15% Coursework and laboratory meetings. 10% mentoring. Two complementary studies planned for the 3-year fellowship.
- Behavioral research proposed is based on protocols already used successfully in experiments with infants.
- Investigator will develop expertise in Functional near-infrared spectroscopy – brain activity measured through hemodynamic responses associated with neuron behavior.

Weaknesses

- No preliminary data – (presented as a weakness by investigator and mentor). Investigator and mentor have proactively considered problems that could arise and proposed possible alternative approaches.
- Goals may be too broad.
- Working in two laboratories and auditing 2-3 classes in years 1 and 2 may create challenges for productivity.

4. Training Potential:

Strengths

- Highly motivated investigator.
- Strong background.
- Outstanding mentors.

Weaknesses

- None noted.

5. Institutional Environment and Commitment to Training:

Strengths

- Harvard and MIT are exceptional environments to conduct research on developmental and social psychology. The Spelke and Saxe laboratories provide physical settings and strong intellectual and collegial support.
- Weekly laboratory meetings
- Will have access to expertise in laboratories that study cognitive development, and moral and social psychology.
- Coursework (audit): During year 1, Empirical and Computational Approaches to Cognitive Development, Developmental Neurobiology , Responsible conduct in Science offered. In year 2, Computational Cognitive Science; and Intergroup Relations.

Weaknesses

- None noted.

Protections for Human Subjects:

Acceptable Risks and Adequate Protections

- Adequate protections for human subjects.

Data and Safety Monitoring Plan (Applicable for Clinical Trials Only):

Not Applicable (No Clinical Trials)

Inclusion of Women, Minorities and Children:

- Sex/Gender: Distribution justified scientifically
- Race/Ethnicity: Distribution justified scientifically
- For NIH-Defined Phase III trials, Plans for valid design and analysis: Not applicable
- Inclusion/Exclusion of Children under 18: Including ages <18; justified scientifically
- Male and female. Inclusion of minority and non-minority participants. All children under 18 years old, justified scientifically.

Vertebrate Animals:

Not Applicable (No Vertebrate Animals)

Biohazards:

Not Applicable (No Biohazards)

Training in the Responsible Conduct of Research:

Acceptable

Comments on Format (Required):

- Responsible Conduct of Research includes seminars and meetings with sponsors.

Comments on Subject Matter (Required):

- Recruitment. Retention. Informed consent. Authorship.

Comments on Faculty Participation (Required):

- Participation of mentors/sponsors in Responsible Conduct of Research Training.

Comments on Duration (Required):

- For duration of fellowship.

Comments on Frequency (Required):

- At least monthly.

Budget and Period of Support:

Recommend as Requested

CRITIQUE 3

Fellowship Investigator: 1

Sponsors, Collaborators, and Consultants: 1

Research Training Plan: 4

Training Potential: 2

Institutional Environment and Commitment to Training: 1

Overall Impact/Merit: The investigator presents a plan for training that will focus on how infants perceive social communication and in particular how infants perceive the social affiliations of caregivers. These goals fit with a continuing interest in social communication that began with a high school teaching position involving autistic children, continued with brief stints in research laboratories at UC Davis and Berkeley, and then further developed through graduate school at UC Irvine working in the Sarnecka cognitive development laboratory. This history of education and training shows consistency and persistence in pursuing research interests in social interaction. The post-doctoral proposed aims focus on children's social perceptions and development of hierarchical relations, although the investigator's expressed broader overall interests that extend from infancy through adulthood where there is interest in how adults think about categories (sex, gender, racial makeup, parental status), career goals focus on establishing an academic career that focuses on children. Her research activities reliably result in presentations, and publications. The move to Harvard comes from the initiative of the investigator and is predicated on gaining experience in setting up an infant laboratory and measuring infant responses, acquiring advanced techniques such as functional near infrared spectroscopy and Bayesian statistical approaches, as well as developing a larger theoretical perspective within which to consider her research interests. The training plan is well thought through, although a bit open as she does not yet have extensive experience in the mentors' labs, or with the Harvard environment and greater environment (e.g., MIT). A missing component of the plan is emphasis on factors that contribute to research replicability, i.e., sampling procedures and reporting of outliers. Inclusion and exclusion is a major component of many areas of research, but is not emphasized in the application, and is left to the Human Subjects section. Her previous research and professional experiences should have prepared her well to move to the new environment and establish herself. Her letters indicate that one of her strengths is the ability to meet individuals and establish new relationships. The new environment, to include change in pace of life and weather patterns, will be challenging but once adapted to should assure future development as a productive academician.

1. Fellowship Investigator:

Strengths

- The investigator's background and accomplishments appear to have prepared her well for her next step into and NIH F32 fellowship.
- Her letters of support describe an individual who is meticulous in preparation for research projects and who quickly takes in new information to develop creative research projects.
- The investigator's publication record suggests that publication and grant submissions will be a part of her career.

Weaknesses

- None noted.

2. Sponsors, Collaborators, and Consultants:

Strengths

- The investigator and sponsors have apparently established a relationship that should be beneficial to all parties.
- There are ample research funds spread among the sponsors to support the research and training program.

Weaknesses

- None noted.

3. Research Training Plan:

Strengths

- The research plan fits with the past experiences and acquired skills of the investigator, and will move the investigator forward in terms of methods and ability to work with infants as a research interest.
- The plan meets the stated goals of the investigator for long terms interests and development.
- Aside from acquiring emerging physiological assessment techniques and statistical approaches, the investigator will be immersed in a challenging intellectual environment to sharpen her theoretical training and her professional skills.

Weaknesses

- The research training plan is ambitious and will take place in a new environment that will move quickly. A peer navigator for the environment through the early stages would be a valuable addition.
- Issues of sampling representativeness, sampling recruitment, inclusion/exclusion criteria, which lead to replicability issues are not discussed. Many details of the study are included in Human Subjects, not when describing subjects or methods.
- There is no discussion of potential research concerns or means by which to manage them, which is reflective of the investigator's inexperience with the proposed infant subjects.

4. Training Potential:

Strengths

- The training potential is very high and the likelihood that the training will take the investigator to the next level of research competence is extremely high.

Weaknesses

- Issues of research replicability are missing in the training program and in the research application.

5. Institutional Environment and Commitment to Training:

Strengths

- The institutional environment will clearly provide the support and scope necessary to fulfill the investigator's goals within an F32 fellowship.

Weaknesses

- None noted.

Protections for Human Subjects:

Acceptable Risks and Adequate Protections

- Working with and recruiting infants and mothers. Detailed human subjects plan.

Data and Safety Monitoring Plan (Applicable for Clinical Trials Only):

Not Applicable (No Clinical Trials)

Inclusion of Women, Minorities and Children:

- Sex/Gender: Distribution justified scientifically
- Race/Ethnicity: Distribution justified scientifically
- For NIH-Defined Phase III trials, Plans for valid design and analysis: Not applicable
- Inclusion/Exclusion of Children under 18: Including ages <18; justified scientifically

Vertebrate Animals:

Not Applicable (No Vertebrate Animals)

Biohazards:

Not Applicable (No Biohazards)

Training in the Responsible Conduct of Research:

Acceptable

Comments on Format (Required):

- Format is acceptable.

Comments on Subject Matter (Required):

- Subject matter is acceptable.

Comments on Faculty Participation (Required):

- There is broad faculty participation.

Comments on Duration (Required):

- Duration is noted.

Comments on Frequency (Required):

- Frequency is acceptable.

Budget and Period of Support:

Recommend as Requested

THE FOLLOWING SECTIONS WERE PREPARED BY THE SCIENTIFIC REVIEW OFFICER TO SUMMARIZE THE OUTCOME OF DISCUSSIONS OF THE REVIEW COMMITTEE, OR REVIEWERS' WRITTEN CRITIQUES, ON THE FOLLOWING ISSUES:

PROTECTION OF HUMAN SUBJECTS: ACCEPTABLE

INCLUSION OF WOMEN PLAN: ACCEPTABLE

INCLUSION OF MINORITIES PLAN: ACCEPTABLE

INCLUSION OF CHILDREN PLAN: ACCEPTABLE

COMMITTEE BUDGET RECOMMENDATIONS: The budget was recommended as requested.

Footnotes for 1 F32 HD096829-01; PI Name: Thomas, Ashley J.

& Ad hoc or special section application percentiled against 2018/05 ZRG1 F16-L (20) L study section.

NIH has modified its policy regarding the receipt of resubmissions (amended applications). See Guide Notice NOT-OD-14-074 at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-074.html>. The impact/priority score is calculated after discussion of an application by averaging the overall scores (1-9) given by all voting reviewers on the committee and multiplying by 10. The criterion scores are submitted prior to the meeting by the individual reviewers assigned to an application, and are not discussed specifically at the review meeting or calculated into the overall impact score. Some applications also receive a percentile ranking. For details on the review process, see http://grants.nih.gov/grants/peer_review_process.htm#scoring.

MEETING ROSTER

Center for Scientific Review Special Emphasis Panel
CENTER FOR SCIENTIFIC REVIEW
Fellowships Overflow: Risk, Prevention and Health Behavior
ZRG1 F16-E (20)
03/09/2018

Notice of NIH Policy to All Applicants: Meeting rosters are provided for information purposes only. Applicant investigators and institutional officials must not communicate directly with study section members about an application before or after the review. Failure to observe this policy will create a serious breach of integrity in the peer review process, and may lead to actions outlined in NOT-OD-14-073 at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-073.html> and NOT-OD-15-106 at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-106.html>, including removal of the application from immediate review.

CHAIRPERSON(S)

VOSVICK, MARK A., PHD
ASSOCIATE PROFESSOR
DEPARTMENT OF PSYCHOLOGY
DIRECTOR-CENTER FOR PSYCHOSOCIAL
HEALTH RESEARCH
UNIVERSITY OF NORTH TEXAS
DENTON, TX 76203

CHUANG, CYNTHIA H, MD
PROFESSOR OF MEDICINE
DIVISION OF GENERAL INTERNAL MEDICINE
MILTON S HERSHEY MEDICAL CENTER
PENNSYLVANIA STATE UNIVERSITY
HERSHEY, PA 17033

MEMBERS

BEVERSDORF, DAVID QUENTIN, MD
ASSOCIATE PROFESSOR
DEPARTMENTS OF RADIOLOGY,
NEUROLOGY AND PSYCHOLOGICAL SCIENCES
UNIVERSITY OF MISSOURI
COLUMBIA, MO 65211

CZAJA, SARA J., PHD
LEONARD M MILLER PROFESSOR
AND SCIENTIFIC DIRECTOR
DEPARTMENT OF PSYCHIATRY AND
BEHAVIORAL SCIENCES, CENTER ON AGING
UNIVERSITY OF MIAMI SCHOOL OF MEDICINE
MIAMI, FL 33136

BIRKETT, MICHELLE, PHD
ASSISTANT PROFESSOR
DEPARTMENT OF MEDICAL SOCIAL SCIENCES
FEINBERG SCHOOL OF MEDICINE
NORTHWESTERN UNIVERSITY
CHICAGO, IL 60611

DEW, MARY AMANDA, PHD
PROFESSOR AND PROGRAM DIRECTOR
DEPARTMENT OF PSYCHIATRY
UNIVERSITY OF PITTSBURGH
PITTSBURGH, PA 15213

BLUMENTHAL, JAMES A., PHD
PROFESSOR
DEPARTMENT OF PSYCHIATRY
AND BEHAVIORAL SCIENCES
DUKE UNIVERSITY MEDICAL CENTER
DURHAM, NC 27710

DIGNAN, MARK B, PHD
PROFESSOR
DEPARTMENT OF INTERNAL MEDICINE
MARKEY CANCER CENTER
UNIVERSITY OF KENTUCKY
LEXINGTON, KY 40536

BROWN, RONALD TERRY, PHD
PROFESSOR AND DEAN
DEPARTMENT: SCHOOL OF ALLIED HEALTH SCIENCES
UNIVERSITY OF NEVADA
LAS VEGAS, NV 89154

EDWARDS, KELLY A., PHD
PROFESSOR
DEPARTMENT OF BIOETHICS AND HUMANITIES
ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES
UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE
SEATTLE, WA 98195

BRUCE, DOUGLAS, PHD
ASSOCIATE PROFESSOR
DEPARTMENT OF HEALTH SCIENCES
MASTER OF PUBLIC HEALTH PROGRAM
DEPAUL UNIVERSITY
CHICAGO, IL 60614

ELIAS, JEFFREY W., PHD
DIRECTOR
GRANT COORDINATION/FACILITATION
SCHOOL OF MEDICINE
UNIVERSITY OF CALIFORNIA, DAVIS
SACRAMENTO, CA 95817

GAHAGAN, SHEILA, MD
PROFESSOR AND CHIEF, DIVISION OF ACADEMIC GENERAL
PEDIATRICS
MARTIN T. STEIN ENDOWED CHAIR
SCHOOL OF MEDICINE
UNIVERSITY OF CALIFORNIA, SAN DIEGO
LA JOLLA, CA 92093

HELGESON, VICKI S, PHD
PROFESSOR
DEPARTMENT OF PSYCHOLOGY
CARNEGIE MELLON UNIVERSITY
PITTSBURGH, PA 15213

HEMNES, ANNA R, MD
ASSOCIATE PROFESSOR
ASSISTANT DIRECTOR PULMONARY VASCULAR CENTER
DEPARTMENT OF MEDICINE
ALLERGY, PULMONARY, AND CRITICAL CARE MEDICINE
VANDERBILT UNIVERSITY MEDICAL CENTER
NASHVILLE, TN 37232

KELDER, STEVEN HAROLD, PHD
BETH TOBY GROSSMAN DISTINGUISHED PROFESSOR IN
SPIRITUALITY AND HEALING,
DEPARTMENT OF EPIDEMIOLOGY HUMAN GENETICS
AND ENV SCIENCE
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER
AUSTIN, TX 78701

LONG, DOROTHY L, PHD
ASSISTANT PROFESSOR
DEPARTMENT OF BIostatISTICS
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF ALABAMA AT BIRMINGHAM
BIRMINGHAM, AL 35294

MARINO, MIGUEL, PHD
FAMILY MEDICINE BIostatISTICS CORE DIRECTOR
DEPARTMENT OF FAMILY MEDICINE
BIostatISTICS GROUP, SCHOOL OF PUBLIC HEALTH
OREGON HEALTH AND SCIENCE UNIVERSITY
PORTLAND, OR 97217

MCREE, ANNIE-LAURIE, DRPH
ASSOCIATE DIRECTOR
INTERDISCIPLINARY FELLOWSHIP PROGRAMS
DIVISION OF GENERAL PEDIATRICS
AND ADOLESCENT HEALTH
UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MN 55455

ROSNER, BERNARD A, PHD
PROFESSOR
DEPARTMENT OF BIostatISTICS
CHANNING LABORATORY
SCHOOL OF PUBLIC HEALTH
HARVARD MEDICAL SCHOOL
BOSTON, MA 02115

SCHMITTDIEL, JULIE A, PHD
RESEARCH SCIENTIST
DIRECTOR
HEALTH DELIVERY SYSTEMS CENTER
FOR DIABETES TRANSLATIONAL RESEARCH
KAISER FOUNDATION RESEARCH INSTITUTE
OAKLAND, CA 94612

VAIDYA, DHANANJAY MADHUKAR, PHD
ASSOCIATE PROFESSOR OF MEDICINE
DEPARTMENT OF INTERNAL MEDICINE
JOHNS HOPKINS UNIVERSITY
BALTIMORE, MD 21218-2680

SCIENTIFIC REVIEW OFFICER

MANN, LEE S, PHD
SCIENTIFIC REVIEW OFFICER
CENTER FOR SCIENTIFIC REVIEW
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MD 20892

EXTRAMURAL SUPPORT ASSISTANT

NJUKI, JENNIFER N
EXTRAMURAL SUPPORT ASSISTANT
CENTER FOR SCIENTIFIC REVIEW
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MD 20892

Consultants are required to absent themselves from the room during the review of any application if their presence would constitute or appear to constitute a conflict of interest.