**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel in the order listed for Form Page 2. Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemens Kirschbaum</td>
<td>Professor of Psychology</td>
</tr>
</tbody>
</table>

**EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)**

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Muenster, Germany</td>
<td>Diploma</td>
<td>1985</td>
<td>Psychology</td>
</tr>
<tr>
<td>University of Trier, Germany</td>
<td>Ph.D.</td>
<td>1991</td>
<td>Psychology</td>
</tr>
</tbody>
</table>

**NOTE:** The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

**A. Positions and Honors.** List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

**Positions and Employment**

1985-1986  Teaching assistant, University of Muenster
1986-1991  Teaching assistant, University of Trier
1992-1993  Postdoctoral Fellow, University of Rochester
1993-1999  Assistant Professor of Psychology, University of Trier
1999-2003  Full Professor of Psychology, University of Duesseldorf
2003-current  Full Professor of Psychology, Technical University of Dresden

**Honors**

1991 Dissertation Award, University of Trier
1992 Young Investigator Award, Society for the Immunocompromised Host
1995 Neil Miller Award, Academy of Behavioral Medicine Research
1996 Heisenberg scholarship, German Research Foundation
1997 Innovation Award, Foundation for the Advancement of the Center for Psychobiology and Psychosomatic Research

**B. Selected peer-reviewed publications (in chronological order).** Do not include publications submitted or in preparation.

*(selected from 155 peer-reviewed journal publications)*


C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Completed Research Support
He 1013 - 1 DFG - German Research Foundation- (Kirschbaum, PI)
Classical conditioning of natural killer cell activity in humans; April 1, 1989 – March 31, 1991
Role: Co-investigator. This project investigated the possibilities to enhance certain functions of the human immune system by a classical conditioning procedure. Epinephrine was used as an unconditioned stimulus in a five-day learning trial. We were the first to clearly show that also the human immune system can be altered by learning.

Ki 537-6-1 DFG (Kirschbaum PI)
Endocrine and subjective stress responses mediated by menstrual cycle phase and oral contraceptive use; January 1, 1995 – December 31, 1997
Role: PI; Using the Trier Social Stress Test we showed that the HPA axis response to stress changes as a function of sex steroid levels. Clear-cut gender differences were observed in the endocrine stress response, while no significant differences emerged with regard to subjective stress responses in women and men.
He 1013-10-1 DFG (Kirschbaum PI)  
Habituation to repeated psychosocial stress and health; April 1, 1997 – March 31, 1999  
Role: PI; Repeated psychosocial stress in the laboratory was used to monitor the plasticity of endocrine stress responses in healthy younger adults.

He 1013-10-1 DFG (Kirschbaum PI)  
Protective effects of sex steroids in elderly men and women under psychological stress; January 1, 1997 – December 31, 1999  
Role: PI; Psychological and pharmacological challenge tests were used in these studies to investigate age- and sex-steroid related changes in subjective and endocrine responses. Lowered pituitary feedback sensitivity was observed in elderly subjects with little or no decrement in endocrine responsiveness to psychosocial stress as a function of ageing.

Ki 537-9-1 DFG (Kirschbaum, PI)  
Stress reactivity and glucocorticoid sensitivity in atopic patients and healthy subjects; January 1, 2000 – December 31, 2001  
Role: PI; The modulation of GC sensitivity in peripheral leukocytes are studied in several groups of healthy adults and patients suffering from neurodermatitis or allergic asthma. With a tissue culture model, the feedback sensitivity of the immune system is studied using the production of cytokines as a read-out signal.

Ki 537-9-3 DFG (Kirschbaum, PI)  
NF-kappa B binding activity under acute psychosocial stress; December 1, 2000 - November 30, 2002  
Role: PI; A potential pathway linking psychosocial stress to chronic inflammatory disease is studied in this research project. The activation of the intracellular transcription factor NFkB is measured in response to psychosocial stress.

Ki 537-14 DFG (Kirschbaum, PI)  
Stress in Morbus Addison patients; October 1, 2002 – September 30, 2004  
Role: PI; The role of the HPA axis response to acute psychosocial stress is investigated in this project. It is testing the so-called Munck hypothesis of the teleological meaning of this highly conserved biological response to threat.

Ki 537-18 DFG (Kirschbaum, PI)  
CNS correlates of psychosocial stress; April 1, 2004 – March 31, 2005  
Role: PI. This project investigates the specific activation patterns in the central nervous systems that follow exposure to acute psychosocial stress. A PET and an fMRI experiment will be conducted, the latter includes repeated stress sessions for the investigation of habituation processes.

**Ongoing Research Support**

Ki 537-20 DFG (Kirschbaum, PI)  
Serotonin transporter polymorphisms: Impact on stress responses, startle-response and emotional memory in humans. August 1, 2005 to present  
Role: PI. The devolopment of gene X environment interactions is studied across the life span in four cross-sectional age cohorts (newborn, 8-10 yrs, 20-30 yrs, and 65-80 yrs). The special emphasis of this study is the hypothesized development of hyperresponsive amygdala neurons in individuals carrying one or two copies of the short allele of the 5-HTTLPR.

Ki 537/21 DFG (Kirschbaum, PI)  
Chronic stress by “repeated hits” and maladaptation? A biopsychological investigation of the allostatic load model in amateur sports. July 1, 2006 to present  
Role: PI. In a group of amateur ballroom dancers, the chronic stress model of McEwen is tested with regard to endocrine regulation, immune competence and measures of glucose tolerance.