



DEPARTMENT OF HEALTH & HUMAN SERVICES

PUBLIC HEALTH SERVICE

NATIONAL INSTITUTES OF HEALTH
NCI-FREDERICK
Gene Regulation and Chromosome Biology Laboratory
Molecular Control and Genetics Section

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Dr. Jeremy Bennett
Faculty Search Coordinator
Department of Biology
Indiana University
1001 East 3rd Street
Jordan Hall 127
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Dear Dr. Bennett:

I am pleased to recommend Dr. Alena Dabrazhynetskaya for the position advertised. I have known Dr. Dabrazhynetskaya since her arrival in the laboratory of Dr. Stuart Austin here at the National Cancer Institute in Frederick. Dr. Austin's laboratory studies the replication and segregation of *E. coli* and plasmid chromosomes. Dr. Dabrazhynetskaya came to Frederick in 2001 as a postdoctoral fellow from the Belarus State Institute of Genetics and Cytology in Minsk. She at once became an active focus of the Austin lab and has been instrumental in developing a technology that is revolutionizing the study of the chromosome and other components of the bacterial cell.

She came to the Austin lab with a good background of bacterial genetic research in her Belarus studies. Here she has expanded her basic understanding of genetics and molecular biology and is carrying out complex experiments to understand special protein-DNA interactions. Her research is expanding and is revealing new details about chromosome segregation and cell division processes in bacteria that are similar to mitosis in eukaryotic species. Her technique of modifying specific sites in the chromosome has the potential to be used not only in *E. coli* but also in eukaryotic cells to help us better understand specific protein nucleic acid interactions.

The type of work Alena is doing takes perseverance, hard work and dedication, as well as an ability to understand and develop new ideas to exploit her technology. She gets along well with everyone and enjoys collaborations. Though she is rather quiet, she expresses her ideas clearly and forcefully. Her English has improved dramatically, and she still is improving in this area. Her seminars are well thought out and clearly given with excellent visual aids. Because of her enthusiasm and motivation, I expect that she will continue to do well as a laboratory researcher.

Sincerely,

Donald L Court, Ph.D.
Chief, Molecular Control & Genetics
Center for Cancer Research
NCI-Frederick



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Cell Cycle Regulation Section

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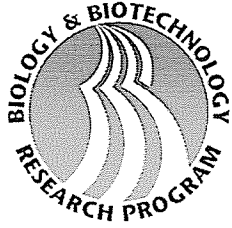
Dear Dr. Bennett:

It is a pleasure to recommend Dr. Alena Dabrazhynetskaya for the position you describe. Alena came to my lab from a relatively senior position in the State University of Belarus. She joined my lab as a post-doc in 2001 and has become a key driving force in our research effort. She came to my lab with a solid background in bacteriology and microbial genetics. Here, she has concentrated her efforts on learning and using state-of-the-art techniques that have recently been developed and were not readily accessible to her in her previous position. She is working on novel protein-DNA interactions and the way in that they develop and change during microbial evolution. The particular interactions that she studies govern the segregation of plasmid DNA in bacteria and are a key part of a process that is akin to mitosis in higher organisms. Alena has done an excellent job of probing these systems, and has shown that a special mechanism has developed for developing new species specificities by simple genetic changes. The work should have important implications for our understanding of protein-DNA recognition specificity in general.

Alena is bright, hardworking and very competent. She is a well-informed and mature scientist, who displays a quiet self-confidence that is a great asset to the lab. She is a pleasure to have as an associate. She is highly motivated and is always willing to go the extra mile to ensure the quality of her work. Her mature and pleasant personality allows her to interact excellently with her peers. When she arrived at NCI, her English was somewhat limited. However, she has been learning fast, and has given some very well presented seminars within the last two years. She is an outstanding young scientist whom I am confident has a highly productive career ahead of her. I recommend her with a very high level of enthusiasm.

Sincerely,

Stuart Austin, Ph.D.
Chief, Cell Cycle Regulation Section. GRCBL
NCI-Frederick



**Biology and Biotechnology Research Program
Lawrence Livermore National Laboratory
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10/28/05

Jeremy Bennett
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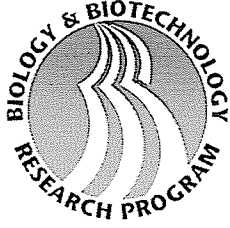
Dear Dr. Bennett,

I am writing a reference for Alena Dabrazhynetskaya, who has applied for a position in your laboratory.

I have held the position of Biomedical Scientist in Biology & Biotechnology Research Program in the Lawrence Livermore National Laboratory (LLNL) for seven years. I have been involved in collaborations with the Cell Cycle Regulation Laboratory (CCRL) at the National Cancer Institute, where I was previously employed as a Senior Postdoctoral Fellow. I know the work of Dr. Dabrazhynetskaya who was offered the position of Research Fellow in the CCRL under the supervision of Dr. Stuart Austin because of her unique expertise and extensive experience in microbiology and molecular genetics.

Dr. Austin's laboratory is at the forefront of research into the mechanisms of DNA replications and segregation, using bacterial plasmids such as P1 as model systems. His laboratory has enabled staff to become experienced in current molecular biological techniques such as DNA sequencing, gene cloning and manipulation, protein expression, photomicroscopy and flow cytometry. Dr. Austin maintains very high standards of scientific integrity, critical thinking and productivity among his research personnel.

Dr. Dabrazhynetskaya's research record in Dr. Austin's laboratory is high quality, and has culminated with a publication in the highly prestigious journal *Molecular Microbiology* in 2004; two manuscripts are also in preparation for the *Journal of Molecular Biology*. Her work has elegantly visualized DNA segregation during bacterial cell division, and proved the role of the plasmid encoded protein components (ParA and ParB) in positioning the plasmid and directing its accurate segregation at cell division. It has been an invaluable addition to our previous understanding of the roles of these proteins that were inferred from previous genetic and biochemical studies.



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In my opinion, Dr. Dabrazhynetskaya's success in molecular biology at the NCI has augmented her previous experience in genetics and biochemistry gained in Belarus. Collectively this expertise will make her an effective addition to any research project utilizing her microbiology and molecular biology skills.

Sincerely,

Lyndsay Radnedge