Cover letter

Dear Dear Sir or Madam,,

My name is Zhao Bin. I have constructed virtual placenta for understanding the placental interactions between mother and fetus by in-silico. My present study is designed with some bio-mathematical approaches to formulate some speculations to construct virtual placenta and multi-antibiotic resistance.

I would very much like to meet with you to discuss our future research plan. Thank you for your time and consideration.

Sincerely yours,

Zhao Bin

Curriculum Vitae

Education:

2008-2011 Northwest University, Xi'an, Shaanxi, China – PhD

Work Experience:

2006-present	Associated Professor of College of Science, Northwest A&F University, Yangling, Shaanxi, China
2011-2016	Post-doctor of Centre national de la recherche scientifique, Paris, France

For a further look of my CV and publications see:

http://lxy.nwsuaf.edu.cn/szdw/302589.htm

http://www.enetedu.com/index.php/Event/teachShareC?id=16714&courseID=&courseType=2

A brief summary of past research accomplishments

I have constructed virtual placenta for understanding the placental interactions between mother and fetus by in-silico.

Multi-antibiotic resistance in bacterial infections is a growing threat to public health. Some experiments were carried out to study the multi-antibiotic resistance. Methods: The changes of the multi-antibiotic resistance with time were achieved by numerical simulations and the mathematical models, with the calculated temperature field, velocity field, and the antibiotic concentration field. Results: The computed results and experimental results are compared.

The immune system of all living things shows regularly recurring rhythmic variations in numerous frequencies. The responses of the immune system to an antigen entry could vary in accordance to the chronobiological phenomena. These cyclic oscillations in living things occur for many essential biological processes in order to deal with environmental changes and challenges. I aimed to develop mathematical models with important physiological parameters involving immune response for antibody rhythms by using the circadian, infradian and ultradian rhythms of IgY antibody from our earlier experimental findings.

For a further look of my past research accomplishments see:

http://news.nwsuaf.edu.cn/xnxw/71462.htm

http://oa.nwsuaf.edu.cn/form/user/anonymous/zxgg_infonew_noa_xn.jsp?processInsId=419738

http://kyy.nwsuaf.edu.cn/gzdt/309660.htm

http://lxy.nwsuaf.edu.cn/xzdt/305612.htm

http://kyy.nwsuaf.edu.cn/tzgg/zhc/308882.htm

http://oa.nwsuaf.edu.cn/form/user/anonymous/zxgg_infonew_noa_xn.jsp?processInsId=422895

A brief description of my future research plan

My future research goal is to actively pursue a research program in Bioinformatics, Proteomics, Interdisciplinary research, System Biology and Computational Biology. My research not only contributes to bioinformatics with complex analysis, but also informs computational biology.