Berg awarded grant to study new theory in human auditory processing

Findings could lead to advances in hearing aid technology

Bruce Berg, cognitive sciences professor, has received a $355,000 grant from the National Science Foundation to study a possible new theory in auditory processing which could lead to advances in hearing aid technology.

Using laboratory sound tests, Berg will collect data to determine whether the human auditory system is comprised of a solitary peripheral filterbank - as is currently believed - or multiple filterbanks in the processing of sound.

"Current auditory research dating back 60 years says that we have only one initial filterbank in our hearing system which helps us to process sound," says Berg.

He asserts that acoustic information is processed by multiple, parallel processes, each with its own filtering properties

If correct, Berg's findings could lead to advances in cochlear implants and hearing aids by providing a further understanding of the human ability to process sound.

The study will span a three year period, ending in March 2011.