Nomination of Andrew Herbert Knoll, Fisher Professor of Natural History at Harvard University for Patten Lectureship, 2009-2010

If there were a Nobel Prize in Geological Sciences, Andrew (Andy) Knoll arguably would have been the youngest recipient. Citations to his seminal contributions in the fields of evolutionary biology and geological records put him in the top 0.5% of the scientific population of the field in a 2002 survey. His research has not only changed the way geological records are interpreted, hand in hand with evolutionary biology, it has also spawned a new discipline in the world of stratigraphy of old times when animals originated, evolved and underwent explosive radiation. Naturally, Andy advises NASA on search for extraterrestrial life and astrobiological exploration of Mars.

Andy has been a professor in several disciplines at Harvard, some simultaneously, including Biology, Earth and Planetary Sciences, and Organismic and Evolutionary Biology. He currently holds the Fisher Professorship in Natural History - a title that tells all about his diverse professional contributions to unified knowledge. Along the way to reach this mid-life success - and surely many higher and higher successes Andy will achieve - he has collected numerous awards and recognitions. Within ten years of his Ph.D. (1977) he was elected a Fellow of the American Academy of Arts and Sciences and awarded a Guggenheim Fellowship (1987). In another short four calendar years he would be elected a Fellow of the National Academy of Sciences (1991), which would be followed by membership in the American Philosophical Society (1997). An array of honors has been bestowed on Andy including two Honorary Degrees and several medals including the Wollaston Medal of the Geological Society of London. Andy has delivered more than thirty Endowed and Distinguished Lectures in several countries including Australia, Belgium, Canada, England, France, Germany, Holland, Ireland, Italy, Japan, Norway, Scotland, South Africa, Spain, Sweden, and USA.

That Andy has served as an Associate Dean (2000-2003), chaired his Department (1992-98; 2004-05), been on Editorial Boards of some 15 journals, been on numerous national and international boards to advise and decide on science programs, delivered over 450 invited lectures, and, published nearly 300 peer-reviewed papers is a matter of mere statistics. Please see the attached abbreviated vita (also @ http://geology.indiana.edu/GeologyPattenNom.pdf). His contributions to and influence on evolutionary biology, geology, sedimentology and exploration of Mars, astrobiology, philosophy of science, i.e., natural sciences sensu latu make him outstanding.

Andy has an uncanny gift of explaining complicated interdisciplinary scientific vanguard research in simple language, which is accessible to any intelligent person much in the tradition of Carl Sagan and Stephen Jay Gould. Andy’s book “Life on a Young Planet” (Princeton, 2003) is an example. Anyone who has even leafed through a few pages of the book would agree; some may even go farther. This ability is also obvious in Andy’s public and professional lectures, discussions and debates. They are full of substance, well argued for a new hypothesis, exemplary in hypothesis-testing, and far, far, from any simplistic GeoBiology 101. Listening to Andy’s lectures is an intellectually stimulating, if not captivating experience.
A personal note is perhaps relevant. I have attended at least 66% of Patten Lectures in the last 30 years or so, and have served in and chaired the Patten Committee. Andy’s speaking quality is at par with the best, such as Tony Judt, Evelyn Keller, Edward Said or Sheldon Glashow to name a few. No wonder that Andy has been already invited, aka conscripted, to deliver four endowed lectures during the 2009 Darwin Bicentennial.

Andrew Herbert Knoll is clearly the best choice for Patten Lectureship in 2009.

**Preliminary Plan of Activities**

The following is an ambitious plan that takes up more time than what Andy would have in a week in Bloomington. We will coordinate among Departments to adjust the schedule.

**Geological Sciences:**
- One exclusively all-student (graduate and upper-class undergraduates) event, possibly around a late afternoon reception, hosted by the Geology Club and the Indiana Chapter of Sigma Gamma Epsilon (geology honor society).
- Two separate free-for-all discussions with students in (a) geobiology, and (b) topics related to Mars exploration. Possibly brown-bags.
- Participating in one lecture and one seminar for advanced graduate students in appropriate topics taught during the semester of the visit. (Time permitting)
- Visits and debates with faculty in geobiology (Claudia Johnson, Polly), Mars Exploration (Bish, Pratt, Schieber) and the Precambrian time (Basu, Johnson, Schieber).
- One private reception in a faculty home; and, one dinner with faculty hosted by the Department of Geological Sciences.

**Biology:**
- Visiting graduate seminars and one ‘Themester’ class; prolonged visits and debates with faculty groups in Evolutionary Biology *sensu lato*.

**Others:**
- No more than 3-hour visits including lunch for discussions with students and faculty in the following six units: Anthropology, Astronomy, History and Philosophy of Science, Indiana Geological Survey, Informatics, and, Sigma Xi (multidisciplinary lunch).
- There is so much demand that we will have to be strictly miserly with Andy’s time.