

## The Einstein Postdoctoral Fellowship Program: Morphing and Merging

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### A Brief History

In 1998, the year before *Chandra* (née AXAF) was to be launched, the *Chandra* Fellowship program began. Previous NASA mission-related postdoctoral fellowships had provided clear evidence for the value of such programs, to ensure that promising young scientists would keep pushing the boundaries of science, enhancing the return on the public's investment in these missions.

Each year, 5 new *Chandra* postdoctoral fellows were selected from about a factor of 10 to 20 more applicants from around the world, to undertake independent research broadly related to the scientific mission of the *Chandra* Observatory at a U.S. host institution for up to three years. To foster geographic and scientific diversity, no more than one new fellow per year could settle at a given host. The *Chandra* Fellowship was administered at the CXC by Nancy Remage Evans for a decade. Most of the early *Chandra* Fellows are now faculty doing active research relevant to *Chandra*, and have spawned a generation or two of academic descendants who continue to enliven and enlighten the field.

Then, in 2009, NASA decided to merge the *Chandra* and Fermi (née GLAST) fellowship programs, together with a number of additional fellowships, into a combined program called the Einstein Fellowship. The Einstein Fellowship has sponsored from 10–12 new fellows each year, encompassing research areas related to the science goals of the Physics of the Cosmos program and its missions – high energy astrophysics, cosmological investigations relevant to Planck, WFIRST, or new dark energy missions, and gravitational astrophysics. Andrea Prestwich ran the Einstein Fellowship at CXC from 2010 until 2014, when I began to manage the program.

Fellows have gathered to share the results of their research at an annual symposium, every year since 1999. Each symposium has been both exciting and collegial, and the graphics have evolved from displaying scatter plots on an overhead projector to high-definition videos of large scale structure formation, black hole mergers, and MHD accretion discs.

Information about current and prior Einstein and *Chandra* Fellows, including programs and presentations from their symposia can be found at <http://cxc.harvard.edu/fellows>.

### A New Postdoctoral Pangaea

To rebalance NASA Science research and analysis (R&A) funds relative to fellowship funds, the NASA

Astrophysics Division has decided to merge and reduce its three major astrophysics fellowships, the Einstein, *Hubble* and Sagan programs. Recently, these three programs have sponsored a total of about 30–35 fellows, but this will contract to 24 starting with the class of 2018.

Also starting this year, the application, selection and grants administration for fellows will be through STScI, and the three original categories will be combined under the umbrella of the NASA *Hubble* Fellowship Program (NHFP). The NHFP covers all of NASA astrophysics, with science themes preserved, broadly reflecting these questions:

- How does the Universe work?→NHFP Einstein Fellows
- How did we get here?→NHFP Hubble Fellows
- Are we alone?→NHFP Sagan Fellows

Salary and benefits remain at a similar level, competitive with other US prize fellowships. The 2018 NHFP Announcement of Opportunity was released September 1<sup>st</sup> 2017, yielding 350 complete applications by the deadline in early November.

Fifty panelists were recruited to participate in 6 topical science panels, reviewing a huge range of scientific research proposed by the applicants. At the selection panel meeting in Alexandria, VA during late January 2018, panelists faced the daunting task of ranking many impressive applications. After the review, we immediately began making offers to the top-ranked candidates. Offerees juggled their options and host institutions (with the new rule allowing a maximum of 2 new fellows per year at a single institution, and 5 total over any 3 year period starting 2018 or later). A NASA press release will announce the new 2018 class of 24 fellows in the Spring. Without any explicit linking to missions, the NHFP will encompass as broad a range of NASA astrophysics as ever.

Going forward, I will continue to supervise the NHFP Einstein Fellows, while Andy Fruchter and Dawn Gelino will shepherd the NHFP *Hubble* and Sagan Fellows, respectively. Kartik Sheth is the NASA Program Officer overseeing the NHFP. As we collaborate to develop the policies and procedures for running the merged NHFP program, during these shifts, we look forward both to continued spectacular scientific results from the fellows, and to the active input and participation of the entire NASA Astrophysics community.

The NHFP is headquartered on the web at <https://nhfp.stsci.edu>, which includes information on all the fellows. Any questions about the program can be addressed to [nhfp@stsci.edu](mailto:nhfp@stsci.edu). ■