

The Case of the Shiny Mirrors

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3 Dr. Amy Adams is a staff scientist Berkeley Lab. She has spent 15 years at Berkeley Lab
4 researching optical resolution. Most of her early research was funded by the Department of
5 Energy, with some additional funding from the National Institutes of Health (NIH) and
6 NASA. Four years ago she invented a ceramic coating technology designed to improve
7 resolution of reflective lenses.

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9 Eager to commercialize the technology, Dr. Adams formed a start up company, MirrorsPlus,
10 to license the technology from LBNL, and obtained a DOE SBIR grant for some initial
11 funding. Dr. Adams is the Chief Scientific Officer (CSO) for MirrorsPlus, a job she performs
12 for about 15 hours a week in addition to her full-time Berkeley Lab research appointment.
13 She receives no salary for this work, but as a founder of MirrorsPlus, Dr. Adams owns 30%
14 of the equity in the company.

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16 The Director of Product Engineering for MirrorsPlus is Bob Barker, who went to work for
17 the company directly after he finished his graduate studies under Dr. Adams in her lab at
18 LBNL. As the CSO, Adams oversees Barker's work. Barker is the PI on the SBIR grant, which
19 has a goal of producing a commercial proof of concept for the ceramic optical coatings. In
20 order to access the physical resources necessary to improve the coatings, Dr. Adams plans
21 for MirrorsPlus to collaborate with Berkeley Lab on the SBIR grant, probably with her own
22 Lab as she has the most expertise in the technology.

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24 One of Dr. Adams' NIH grants was extended at a lower level of funding than she applied for,
25 and she is no longer able to provide full-time support for Sam Lucas, a promising young
26 researcher who works for her in her LBNL lab. She was able to extend Lucas' appointment,
27 but only at 50% time. She values his expertise, and hopes to be able to obtain more funding
28 in the future and once again offer him a 100% appointment at Berkeley Lab. In order to
29 retain Lucas part time and not lose his expertise entirely, she offers him a half-time
30 consulting job with MirrorsPlus for a one-year period while he continues to work 50% for
31 Berkeley Lab.

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33 For the past several years, Dr. Adams has conducted some research at LBNL funded by
34 NASA. In the most recent renewal of the NASA project, the scope of work includes
35 developing optical coatings to improve the resolution of several of NASA's large telescopes.
36 NASA would very much like her to produce a prototype of the coatings. Dr. Adams can
37 develop specifications for the coatings at LBNL. However, as the prototype would really fit
38 best with MirrorsPlus' attempts to commercialize similar work, Dr. Adams requests an
39 LBNL subcontract for \$300k to MirrorsPlus to complete the prototype development under
40 the direction of Dr. Barker.

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