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Microscopy AND Microanalysis

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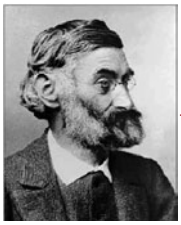

Dear Abbe

Dear Abbe,

Our facility has several confocals and wide-fields. Despite how many reminders we send or how many notices we put up, some users still overwhelm the lenses with too much immersion oil. This causes very messy objectives. We know that one manufacturer sells "immersion suction rings" that are useful on their scope, but we've got two other scopes from a different manufacturer that tend to be the messiest. Do you have a solution for messy objectives?
Thanks!!
Kim in Kennebunkport

Dear Kimster,

Ah, when the words Kennebunkport and suction are mentioned together, I have flashbacks of time spent on a speedboat trying to get the word "nucular" out of my head. Your problem lies in the fact that your lenses are designed to be immersed. I remember back when we only had dry lenses and chaffing was common as we tried to massage that last drop of resolution out of them. One of my least known friends, "Tootsie" Rand, was very skilled at removing oil from our lenses. Using a technique that cannot be mentioned here (it's patented), she would clean them very thoroughly in a short time. Although these "suction rings," as you put it, might be available commercially, they can easily be replicated with various prophylactic products available at any pharmaceutical vendor. I prefer various colors to distinguish between lenses. It makes microscopy that much more entertaining and produces very interesting conversations. Of course, another boring solution is to use the cut off fingertips of powderless surgical gloves.

Dear Abbe,

I have a problem in which tissue that should be soft gets hard and crunchy during processing for TEM. Last year it was nematocysts in a deep sea coral that were so hard they could not be sectioned and fell out of the sections. This week my problem is red alga. The red is too "crunchy" to section. The material falls out of ultrathin sections, and I feel like it's putting some wear and tear on the diamond knife.
Tina from Manoa

Dear Tina,

Crunchy? You want crunchy? I remember having to section Hanford sediment for some soil scientists and watched as my diamond knife became serrated before my watering eyes. But enough of my jactations. In your case, we are not talking rocks but little squishy algae. And socialist algae at that! I believe your algae have succumbed to the nefarious Cap'n Crunch® process. The cells that make up your alga have begun to develop a crunchiness that will not become soggy in a fixative for many days. If left long enough, they will even begin to develop handlebar mustachios and tricorne hats at rakish angles. The only solution (no pun intended) for your vexing problem is to soak them in mead for several hours. I know Phil Oshel has suggested this resolution to me on many occasions, but I suspect he was partaking of the solution while the samples soaked. My suggestion is to start working on a suitable nepenthe to forget about your collectivist plant-like protists.

Although Abbe can't answer all queries of a sensitive nature, he'll be sure to make all readers feel special about their problems. Send your dilemmas to Abbe's personal assistant at jpshield@uga.edu.

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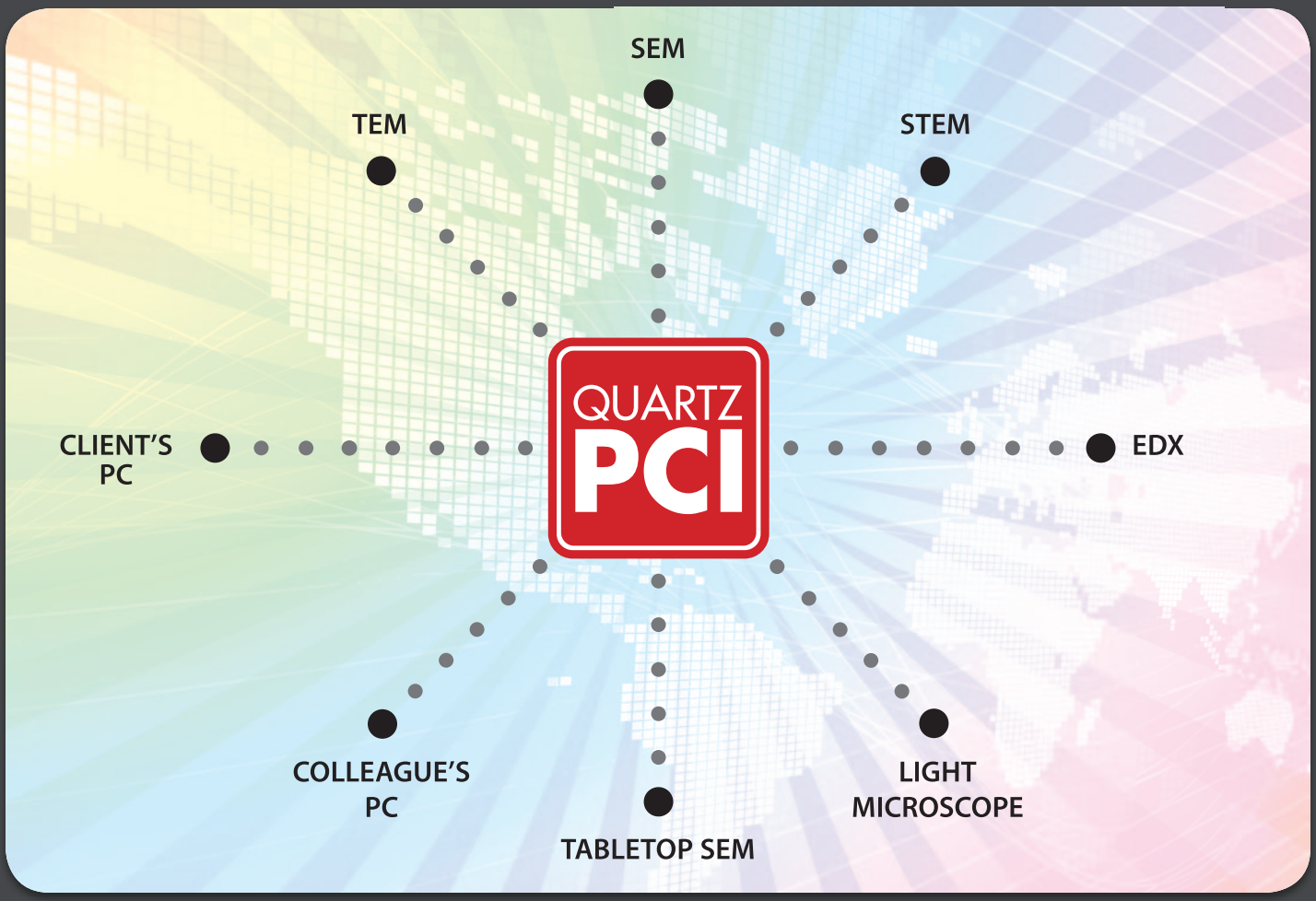

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