The answers are below.

ANSWERS

The clinical scenario strongly suggested primary Sjögren syndrome with multiorgan involvement. The negative result in the antinuclear antibody testing argued against Sjögren syndrome, however. Because the negative result did not match with the clinical presentation, further serial dilutions were performed, and a positive fluorescence signal was obtained with diluted serum samples. A fine speckled pattern was observed at serum dilutions of 1:80, 1:160, and 1:320, which pointed to the prozone (hook) effect as the cause of the false-negative result. The prozone effect is the phenomenon of a false-negative (low) result in the presence of a high concentration of the analyte (1). The mechanism of the prozone effect relates to the optimal ratio of antigen to antibody. Further identification of the antibodies revealed anti-SSA antibodies, a finding consistent with the diagnosis of Sjögren syndrome. Only a few cases of the prozone phenomenon for antinuclear antibody detection have been described. McGuiness et al. reported the prozone phenomenon for the antinuclear antibody assay in a case of drug-induced lupus (2).

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References


News & Views

A Foot in the Door:
A Guide to the Postdoctoral Application Process

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A recent report in Nature (1) provides some helpful advice on the postdoctoral application process. The author interviews a number of successful postdoctoral fellows on how they secured their positions. The report was divided into 3 categories: “narrowing the field,” “beyond publication record,” and “what not to do.” No strict formula guaranteed success, but as the title indicates, there are some key steps candidates can take to improve their chances.

A recurring theme in the report was to identify a laboratory that does work of genuine interest to the candidate. One interviewee described how she wrote down the names of laboratories that published reports she found interesting to narrow the field. Another interviewee wrote from the perspective of someone already in that laboratory, describing in detail the

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follow-up experiments this applicant would do if accepted. This effort and creativity are typically reflected in cover letters and applications, where candidates may mention specific aspects of the research of the principal investigator (PI). Because PIs are acutely concerned with what the applicant has to offer the laboratory, candidates can pique their potential employer’s interest by providing details as to what they did previously and how their target laboratory will get them to their destination. This part of the process is a chance to evaluate career goals, in which applicants should ask themselves, “What is your ultimate career goal?” and “How will working in Professor X’s laboratory get you there?” Faculty members are likely to be drawn to someone who is highly motivated and has clearly defined goals that match the aims of their laboratory.

In a competitive environment, candidates often want to know how many applications they need to send to obtain a position. Again, there is no formula here, because some individuals who were interviewed narrowed their efforts to a single laboratory, whereas others sent dozens of applications to laboratories across the country. Regardless of the approach, applicants should be aware that form letters and serial applications are easily identified as such. Laboratory investigators do not work in a vacuum and are likely to be familiar with competing laboratories; mistyping a potential employer’s name as a competitor’s is a sure way to get passed over. Personalizing each application is a key to success. One successful postdoc interviewed had applied to more than 30 laboratories but still managed to personalize each application.

Although publications are an obvious positive feature of a curriculum vitae (CV), PIs will often look for other signs of productivity. Such signs may include participation in scientific meetings, national associations or local events, and academic committees. Most investigators seek postdocs who will be able to work in a team and be self-motivated. The candidate’s CV can reflect these positive traits even in the absence of publications. The cover letter is an opportunity to highlight writing skills and diffuse potential negative perceptions. For example, it may be important to explain gaps in a candidate’s CV or employment history. One postdoctoral advisor interviewed in the report indicated that at such an early career stage advisors are trying to identify potential. This potential needs be conveyed in the applicant’s CV and cover letter.

Along with the important things an applicant should do, there are multitudes of pitfalls to avoid. According to the report, some of these pitfalls are common sense, such as avoiding sob stories or complaining about previous work conditions. Ignorance of social graces can also hinder an applicant’s success. For example, applicants who informally address a potential advisor they have never met may be flagged as pretentious or arrogant. When applying to foreign countries, applicants may want to solicit input from a native of that country on social customs. Writing ability and attention to detail can also be seen in applications. Where available, applicants should consider taking advantage of writing workshops or courses offering instruction on CV and cover letter preparation. When a laboratory receives dozens of applications, it is simply efficient to exclude ones with obvious errors. Applicants should have their colleagues or friends proofread their CVs, because a new set of eyes may be needed to see that often looked-over typo. A universal consensus among PIs was that errors in the application were an immediate red flag.

In essence, applicants need to express their communication skills and enthusiasm for the laboratory within a very narrow window of time and written material. In such a microcosm, there is no room for small errors. Consider the situation from the PI’s perspective: What would make you interested in a candidate? It will not be long before the table is turned.

**Postdoctoral Application To-Do List**

- Choose referees who really know you, such as collaborators, advisors, or professionals other than your thesis committee members. Ensure that they will give you good recommendations.
- Meet with your referees to explain your career goals to them.
- Encourage referees to send their letters promptly; delayed or incomplete applications may not be accepted.
- Send applications by e-mail or overnight delivery. If you have unpublished manuscripts you want to include, consider a manuscript packet.
- Send a follow-up by e-mail 1–2 weeks after sending your material to make sure the PI has received your application. Avoid making unsolicited phone calls.
- Make it easy for laboratory heads to contact you by phone or e-mail.
- Prepare for the possibility of phone interviews, which may be scheduled or spontaneous. Make sure the conversation is 2-way, and ask your own questions. In case you get nervous, have a list of bullet points handy.

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*Nonstandard abbreviations: PI, principal investigator; CV, curriculum vitae.*

*Adapted from (1) by permission from Macmillan Publishers Ltd.*
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