The faculty dining room

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Lunch time means different things to different people. Some virtuously do without lunch altogether, pretending that this somehow both contributes to health and bolsters the ego, while freeing up time for other things. Some choose to eat in the hospital cafeteria, partaking of the customary sumptuous delicacies.

Among this latter group there are those who choose to dine alone, often with the morning newspaper or the current issue of *The Pharos*. Some choose to eat sitting among the students or young house officers on the assumption that we instructors and mentors will be democratically and generously sharing our knowledge and experience with them. (Actually, our presence often makes them uncomfortable.)

Many of us, however, choose to spend this hour or so in the faculty dining room, where we can chat amiably with our peers and share stories, ask questions, propose what may be absurdities to be shot down or—rarely but occasionally—get a possible clue to a problem which has been perplexing.

Some fifty years ago I was recruited from high academia at Columbia University's College of Physicians and Surgeons to start up a Division of Rheumatology and a research laboratory at Mount Sinai Hospital in New York City. While much of my research effort was devoted to the mechanism of action of the recently discovered cortisone, my major concern was with what we called "rheumatoid factor." The science of immunology was a toddling infant. Nevertheless, I was determined to discover what there was in the serum of seventy percent of patients with rheumatoid arthritis that had the capacity to agglutinate sensitized sheep cells (first reported by Waaler in Norway in 1943 and later by Rose, Ragan, Pearce, and Lipman in 1946).

The process of "sensitizing" the sheep cells involved going to a large-animal center and bleeding a sheep, then injecting a horse with the blood, waiting six weeks for the horse to develop antibodies, then bleeding the horse to collect its serum, bleeding a sheep again to get fresh erythrocytes and coating them with the antibody-laden horse serum.

This was a daunting and dangerous task and I needed a research fellow who would be willing to "learn" the process by doing it for me. I recruited a senior microbiologist from Israel, Jacques Singer, who for family reasons wished to relocate to New York. I taught him the sheep-cell test and set him to do the blood collection.

Jacques didn't like the process any more than I did. The two of us would sit in the laboratory and analyze just what it was that we were doing. The easy part would be to eliminate some of the animal steps. One day at lunch in the faculty dining room, one of the infectious disease specialists asked if any of us had any use for some outdated Red Cross pooled human gamma globulin (which was used at the time for polio prevention). Singer and I grabbed it and found that it coated sheep cells admirably, making the step involving the horse unnecessary, much to the relief of our

wives (and the horses).This also convinced us that what we were detecting was an antibody against antibodies—the concept of anti-antibodies was born and the immunologists took off in many different and important directions.

But how to get rid of the need for sheep cells? We required stable particles of about 0.9 micron that could accept a coating of gamma globulin. About that time, a researcher from Philadelphia named Wallis was visiting. At lunch one day, he described a process he had devised of manufacturing collodion particles in the laboratory. Why didn't we try them? he asked. We did—but they were so unstable that they agglutinated all by themselves.

Our research into the process slogged on until one day, again in the faculty dining room at lunch, while discussing the miracles of modern science in the middle of the twentieth century, one of the biophysicists brought up the amazing fact that houses could now be painted by water-based "latex" paints instead of traditional oil paints. The curiosity of the minds at the lunch table led us to try to find out what these latex paints were. We found out that they consisted of dyed polystyrene latex particles that the Dow Chemical Company in Midland, Michigan, could manufacture to precise size and produce by the carload. We tried various sizes and found that undyed particles of 0.8 to 0.9 micron in diameter could, with a little coaxing, be easily coated with the pooled Fraction II (gamma globulin). Thus was developed the latex fixation test for rheumatoid factor which, in modern mutations, has survived for over fifty years.

What gave us the idea for the use of these particles? A random comment at lunch in the faculty dining room let us know that these particles were used in electron microscopy as measuring standards in the microscopic field.

Now it would be incorrect to say that the lunchtime conversations directly led to the latex fixation test, but this is just one of the myriad examples each of us can think of in which collegiality of basic and clinical scientists have led to signigificant advances. Ideas ferment, and this fermentation process often involves input from sciences remote from the ones we are trained in. The world of each of us is often circumscribed by our area of major interest and training. We need to stir our intellectual pots with fresh ideas, many of which are wrong or ridiculous, but some of which affect our thinking enough to twitch us onto productive paths. No better time or place for this than lunch in the faculty dining room.

So while some may think it elitist to have a faculty dining room, I submit that these havens facilitate the sharing, analyzing, criticizing, and suggesting that are such important mechanisms in the development of new theories and hypotheses in the medical sciences.

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The late night dinner

As I reviewed Dr. Plotz's manuscript, my thoughts immediately turned to what was possibly the most important learning experience of my days as a house officer at Yale over fifty years ago, the late night meal in the hospital cafeteria. The fact that it was free is not relevant now, but was important then.

The late night meal at Yale was served from about 10:00 PM to 12:30 AM. Nurses coming on the 11:00 to 7:00 shift and those going off the 3:00 to 11:00 shift attended in some abundance, a fact of social importance at the time. Most important, house officers from all clinical disciplines were there. Since we were in the hospital every other night and every other weekend, roughly half the house staff was there every night. Not only did we indulge our appetites for food, we exchanged important medical, intellectual, and scientific information. There were informal consults and follow-ups, pearls passed on from attending rounds in many specialties, and reference to articles recently read in medical journals, most often the *New England Journal of Medicine*, everyone's gold standard of up-to-date medical information, then and now. The latter was, in a way, a form of one-upmanship and to those of us who were residents in Surgery with little time to read, evidence that the information dropper, most often a resident in Internal Medicine, did not have enough to do. More likely, it was just an early separation of the cognitive from the noncognitive types.

These informal get-togethers, when added up over the years, were sources of medical information important in both quality and quantity. They are gone and have not been replaced. Our (Stanford's) hospital cafeteria opens at 7:00 AM and closes at 7:00 PM. That may be suitable for the eighty-hour work week, but provides no opportunity for the important exchanges that took place at the late night meal in the bad old days. How ever do house staff learn in the modern era?

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