

Getting Science Done with Friends

The last 15 years has seen a rapid evolution of new species in the pharmaceutical business. Vertical integration is crumbling and the industry (as with the auto industry before it) is becoming a complex web of smaller players serving other smaller players as well as large pharmas. This has been a period of much creative destruction, with large firms merging and gobbling up smaller ones while simultaneously seeding new businesses from disgruntled (or even laid off) scientists going on to start new enterprises. It has been very exciting to watch this new ecosystem grow, prosper, experience some pains and then grow again.

At BASi we've never made the claim that we could do everything. We try to focus on our passions and not get sidetracked. I've enjoyed watching other small independent businesses do the same, and I'd like to take the time here to salute a few that seem to me to have kept the passion. KP Pharmaceuticals in Bloomington, Indiana under the leadership of Raj Matharu (www.kppt.com) would be my choice to do formulations design work and produce quality product under cGMP. They can't compete with all the big plants in Puerto Rico, but that's not their role. Fast, efficient service with little bureaucracy is a KP trademark.

If you or I need to learn something about pharmaceutical solids, the place to go is SSCI, right down the street from us here in West Lafayette (www.ssci-inc.com). Sally Byrn leads a team of fabulous people with very deep experience. Intellectual property issues related to polymorphs is one of their passions. X-ray, IR, solid-state NMR, waters of hydration and all of that is not what I know, but I don't need to because I know SSCI.

If you like to think about dermatology formulations, Dow Pharmaceutical Sciences in Petaluma, California, built by Gordon Dow, is first

rate (www.dowpharmsci.com). Their CEO is Bhaskar Chaudhuri, and when it comes to salves and ointments and all of that, these people know their stuff. I highly recommend them.

Suppose you are interested in finding a source for an active pharmaceutical ingredient (API) and managing its regulatory compliance and keeping it on schedule for your IND or NDA. (API is a way of saying drug substance, just as sanitary engineer can be a polite term for a garbage collector. I see fun in just about everything.) In any event, I really respect the team at Beckloff Associates in Kansas City, Kansas (www.beckloff.com). Mike Beckloff has a group with no laboratories at all, but they know project management as well as anyone. They can keep a project moving, monitor all the partners for regulatory compliance and generally be sure the right things are done at the right time. I see them as analogous to a general contractor for an office building. They know when to bring in the subcontractors to make it all work. This is not science, but it is something that is often done poorly, resulting in major tactical errors which can delay an important drug development project by months or even years.

If we move inside to the liver, then my choice is always XenoTech in Lexena, Kansas (www.xenotechllc.com). Andrew Parkinson founded a great business there on Cytochrome P450s. XenoTech provides both products and services. They have a fabulous new building. If I were to learn as much about the liver as they know, I'd have to live to be 200. The liver sure makes a mess out of many drug candidates, and XenoTech shows us how to study a lot of it *in vitro*. See the XenoTech article in this issue (1).

Moving south from the liver, we find the intestine. This makes us think each day about oral absorption, drug transporter proteins, Caco-2 models and all of that. There is a business that

makes this their business. It's called Absorption Systems (www.absorption.com). The President is Patrick Dentinger and the key technology guru is Ismael Hidalgo. It's amazing where people find their passion. If a drug can't get through the gut, it's certainly not going get to the brain and may only get to the sewer system. A compound that's just passing on through is not likely to be a blockbuster, but rather just a block.

Another boutique that I like is MicaGenix in Greenfield, Indiana (www.micagenix.com). The two principals are Joe Parton, President and K. S. Rao, Director of Toxicology. They focus on a profile of GLP-compliant *in vitro* mutagenicity tests (2), histopathology, and preparation and review of the toxicology component of regulatory submissions.

I've just mentioned a few of many talented small firms. Students of chemistry and pharmacy typically only know of Pfizer, Merck, GSK, Roche, Novartis, Lilly, Abbott, BMS, Amgen, Genentech and the like. They may have heard some buzz about a few biotechs. Rarely do they understand the ecosystem of small service suppliers which has blossomed over the last 15 years. This sector will continue to grow and add scientific staff!

It can be a lot of fun to work for a smaller company where you are a bigger fish in a smaller pond. The contrast between larger and smaller employers was described in our last issue (3).

References

1. D. Steen, *Curr. Sep.*, Vol. 20:4 (2004) 137.
2. K.S. Rao, *Curr. Sep.*, Vol. 20:4, (2004) 141.
3. P. T. Kissinger, *Curr. Sep.*, Vol. 20:3 (2003) 79.