



2008 Newsletter

Serving your testing needs since 1998

KHA Now in the IMR Family

IMR Test Labs is pleased to announce the purchase of Koon-Hall-Adrian Metallurgical, Portland, OR. IMR KHA - Portland shares the mission of providing superior customer service and being the lowest risk provider along with IMR locations in Ithaca, NY, Louisville, KY, and Charleston, SC. IMR KHA - Portland performs metallographic, chemical, mechanical and machine shop services including 24-hour staffing for mechanical, creep and stress rupture testing.



Ithaca, NY
Portland, OR



Ithaca, NY
Charleston, SC
Louisville, KY

ISO 17025
In All Locations

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Bob Adrian, President, Introduces IMR KHA - Portland



You've been a part of KHA for 38 years! How did it all start?

"It was the late 1960's and the industry was growing fast. A friend of mine was a salesman for Reactive Metals, Inc., now known as RMI Titanium. He got me a job as a production control clerk and through this position I met Jerry Koon and Ken Hall. At that time there was no independent lab in the whole state of Oregon for aerospace materials testing (especially titanium), so Jerry and Ken opened Koon Hall Testing Corporation. I was lucky enough to join them. "

You must have experienced a lot of change.

"When we started work in 1969 we did nothing but acceptance testing of Titanium products. Now, we work with all sorts of materials and provide many more services."

One exceptional service you provide is operating a full mechanical lab 24 hours a day! It must be a challenge.

"We started operating the graveyard shift a few years ago with just one guy. That scheduling made for fast turn-around and that was very attractive to our customers. Suddenly we had tons of tensiles to test! We now have a total of 30 people supporting our 24-hour operation. It's the most employees we've ever had. Fortunately, in our region construction is going crazy. We do a lot of over-night work for the Department of Transportation."

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Joe Springer, IMR's new CEO, Talks About his Beginnings with IMR Test Labs and Future Plans for the Company



You've managed some impressive programs for large American companies overseas . What was it about a relatively small upstate NY test lab that piqued your interest?

"I've known Steve Ruoff since 1993, five years before he founded IMR. Steve shared with me his early business plans and we spoke many times about the business. Then in 2005 I was formally hired as a consultant. So, in a sense, I've been working with IMR a long time. It always impressed me as a great company lead by a great guy with a team I'd be proud to join. When the opportunity presented itself – I jumped on it! With four locations, overseas opportunities and 130 employees, it's a great size and more fun than most large companies."

You began your education studying civil engineering from Virginia Tech and then completed it with a masters in business administration from Dartmouth's Tuck School. What does your engineering background bring to your approach to business management?

"Studying engineering taught me discipline and problem solving skills. I learned that you can take very complex issues, including non-scientific ones, and usually boil them down to one or two key problems that need to be solved. I think that the ability to focus in on the root cause of a problem is critical to managing businesses effectively."

You've worked in Asia and Europe. What can we learn from those business environments?

"You can't ignore them; especially Asia. It has over half the world's population. If we want to continue to help our existing world-wide clients, we've got to provide lab support there as well. To succeed we have to be sensitive to how business is done. Usually a solid relationship and a deep level of trust must be established before you can begin doing business together. Without these, you won't get far"

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IMR Quality Update by Deena Crossmore, VP, Corporate Quality

2008 has been a busy year for audits at all IMR locations. In the beginning of the year, Ithaca had an A2LA (ISO 17025) audit, followed by a Nadcap audit. In March, Louisville had their A2LA audit and in June, Charleston had their A2LA audit. I am proud to say that all of the audits were successful with very few findings, which speaks well for the quality systems at all IMR locations. Quality is a top priority for all IMR employees every day.

Please note that all IMR locations are ISO 17025 accredited but not by the same accrediting agency. Portland has ISO 17025 accreditation from PRI-Nadcap and all other facilities from A2LA. In addition, Ithaca and Portland have Nadcap accreditation for Materials Testing Laboratories. To get the most current copies of accreditation certificates for all of our locations, go to the IMR website at www.imrtest.com and click on "Accreditations" or you can contact Deena Crossmore, VP-Corporate Quality at Deena@imrtest.com

Joe Springer

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What do you think IMR Test Labs does better than other labs?

"Our customer service is absolutely superior. When a customer calls IMR they can speak directly with a live, knowledgeable person right away. Our people are well-trained in customer service. They communicate clearly and provide quick follow-up. We consistently track and measure our customer service so we know it's great! While many labs want to be the lowest price lab we aim to be the **lowest risk provider**. We provide our customers the right answers and explanation of why it's the right answer (if they ask for it), and we do this on-time. So that's IMR in a nutshell; 'superior customer service from the lowest risk provider'."

How will IMR prepare for the challenges to come?

"It's very important to invest in our people. Obviously, we want to keep up with changes in technology and encourage a culture of personal growth. We encourage employees to attend technical classes, publish technical papers, serve on boards of professional associations, develop sales skills, and get more leadership training. But it's not just our skills that are important. On every new employee's first day with us we teach them 'IMR 101'. IMR 101 embodies our true culture, our list of rules to work by, our code of ethics. We say, 'Here are our values -- this is what you must do to keep IMR a place everyone can believe in'. We also want to be students of Customer Service. We want to add science to our art and measure how well we serve our clients both qualitatively and quantitatively. We'll continue to back up our slogan, 'Not just data; knowledge', with high quality people."

Last year IMR celebrated its 10th Anniversary. What changes do you envision for IMR Test Labs in the next 10 years? What do you think should never change?

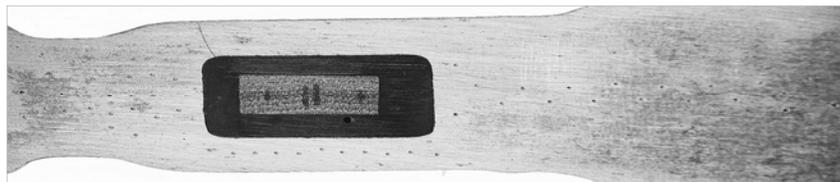
"We're growing larger and we'll be sharing our best practices across all our locations to ensure the highest quality and most consistent level of service to our customers. IMR may acquire more labs but not through an ambitious acquisition program. Acquisitions will occur infrequently and very selectively. Of course, we will continue our regular investment in new equipment and new capabilities with a capital expenditure program that significantly exceeds our annual depreciation. The future may also see us working in Asia and providing new services like deformation, additional hazardous substance testing, or specialized composites testing. You can count on us to never change our commitment to customer service. Our accuracy, timely response, knowledgeable employees; these are the values that we hold most dear."

(Drum roll...)

(Off Stage Announcer)

And Now the Annual IMR Contest!

"We tested this and found it to be extremely reliable. What is it? Here are some clues."



- It's a cordless tool.
- It easily nails down many household problems.
- You buy these by (and for) the pound

If you are among the first 10 respondents with the correct answer you will win a luxurious IMR Golf Shirt! We'll mail your prize directly to you. One entry per person please. Email answers to mparkurst@imrtest.com.

Creep and Stress Rupture Testing Round the Clock at IMR KHA-Portland

Creep and stress rupture are two lesser-known tests used to evaluate some of the mechanical properties of a material. They're not like standard tensile tests which measure the strength of a material in a comfortable controlled environment. In the aerospace industry, design engineers are particularly interested in the performance of alloys operating in oppressive environments near their melting points and with stresses such as those generated by jet engines.

Creep Testing measures the strain (deformation) of a material under constant uniaxial loading and at an elevated temperature. Specifications usually require that a material exhibit no more than a stated amount of strain for a certain period of time while being held at a constant temperature. This strain is measured by an extensometer which is capable of detecting very small changes in the length of the sample.

Stress rupture testing measures the potential for a material to actually fail. While being subjected to a specific load and temperature, specifications require that the sample not fail within a certain minimum time period. Once the sample has reached the minimum time period, often the load is increased to induce failure so that elongation of the failed specimen can be measured.



Banks of Tensile Testers running 24/7 at IMR KHA - Portland. Planned upgrades will provide a wider range of testing temperatures and presentation of test results in popular digital formats.

Bob Adrian

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What was it about IMR Test Labs that attracted you?

"Our customers were asking for a variety of tests that IMR can do while KHA's Creep and Stress Rupture capabilities appealed to Steve Ruoff. Our two labs complimented each other so well it just made sense."

When you think about the future of KHA, what do you see?

"There's a real need here for a good independent lab that can provide full service chemical analysis on metals. I think KHA can provide that service and I think we can do it well. When people think of a full-service metallurgical lab, they usually envision three primary areas of capability – mechanical testing, chemistry, and metallography. We are over two-thirds of the way there. Down the road we may also consider Failure Analysis."

Looking back on your wealth of experience, what has given you the most pride?

"Some years ago a very large national lab purchased a facility near us and made it their mission to put us under. They went to our customers. They offered lower prices. But, our clients just showed them the door! That customer loyalty is something you can't possibly buy. I take great pride in KHA's good name. I treasure that above all else."

New Members of the IMR Family



Amanda Van Slyke Technical Report Specialist, Ithaca
Back away from this newsletter! Amanda graduated from Tompkins Cortland Community College with a degree in criminal justice. She loves to spend time with her friends and family and is an active fund raiser for her favorite charity. (See page 6)



Will Devine Technical Report Specialist, Ithaca
Originally from New Jersey, Will studied government and American studies at Cornell University. Will is "Proud to be a nerd." and likes graphic novels, sci-fi videos and miniature golf when he's not keeping tabs on his tabby cat named "Bren".



Tayza Yeelin Mechanical Lab Technician, Ithaca
Because of political repression, Tayza and his family narrowly escaped Burma with their lives. He has a degree in physics from Ithaca College and enjoys spending time with his family. He is also active in human rights organizations and participates in peace walks for Burma and Tibet.



Vickie Baldassarre Technical Sales, Ithaca
Vickie has been in technical sales for 20 years. She has worked with Intertek Labs and also ran the International Sales Program for Product Certification at TUV Labs. She likes gardening, traveling with her husband and frolicking with Jasmine, her American Staffordshire Terrier.



Will Glesener Sr. Metallurgist, Ithaca
Will has degrees in chemical engineering and material science from UC Berkley and was a material scientist at the Stanford Linear Accelerator before moving east, "to get away from California". He's recently been co-issued a patent with Pratt & Whitney for a proprietary debrazing process. When not helping his 3 sons with homework he loves to go duck hunting.



Venjara Brooks Mechanical Lab Technician, Ithaca
Although "Jara" attended Elmira College and Albany State University to study psychology, fate led him to becoming a chef at two of the southern tier's finest 4-Star restaurants. He enjoys basketball and golf. He was ready for a change when a former lab employee suggested that Jara apply for a position with IMR. He says, "I guess I passed the test."



Travis Christie Metallurgical Technician, Ithaca
Travis started attending community college at the age of 15 and has completed his Liberal Arts Associates Degree. When he's not in the Met Lab he's active in several sports. Future plans include a return to school for a teaching degree. Travis says, "I want to teach environmental studies or music to adolescents"



Jill Howland Technical Report Specialist, Ithaca
Jill studied communications and graduated cum laude from the NY State University at Cortland. She loves photography, has developed several products using her beautiful images and maintains a professional website, JillHowlandPhotography.com. A pet lover, Jill's got her hands full with her 2 ferrets—Stewie and Dood.



Rich Balamut Outside Sales Manager, Ithaca
Rich earned his bachelor's in biological sciences from the New York State University at Brockport -- a B.S. in BS from BS! His previous experience includes being Manager of Client Services, Quality Manager and a 2 year stint as VP at Shiva Technologies (EAG). Rich is an avid golfer, father of 3 and shares a love of the outdoors with his wife, Betsy. His 2 grandchildren also carry on the camping tradition.



Machel Morgan Technical Report Specialist, Ithaca
Machel studied to be a paralegal at Tompkins Cortland Community College and spent 5 years at that profession. She has three children and loves to read. She also enjoys getting away from it all in the Catskills and Adirondacks with her pop-up camper.



Jason Kotas Metallurgical Technician, Ithaca
Jason enjoys the challenge of a special branch of photography -- band concerts. He also takes full advantage of his Harley motorcycle when he can. He says he enjoys working here because, "IMR is an exciting place to be."



David Baldassarre Metallurgical Technician, Ithaca
David was coaxed into joining IMR by his mother, Vickie, in technical sales. David graduated from Tompkins Cortland Community College with an associates degree in business administration. After spending a few years at construction work he started looking for a change. "I've worked with my hands; now I want to work with my brain." He loves to hunt and fish and take care of "Ellie" the sister of his mom's terrier.



Natalie Hummell Chemist, Ithaca
Natalie hails from Trumansburg, NY (the locals call it Tremendous-burg!) She is a chemist with a B.A. from Niagara University. "It's a complicated story," she says. When she's not swimming in Cayuga Lake she's helping to mow the hay on her fiancé's dairy farm



Gabe Borden Software Developer, Ithaca
Gabe earned his B.A. in physics from Cornell University and has been working professionally with computers for 10 years. He plays "folk metal" guitar, plays in adult league soccer and is also kept busy by his dog, 4 children, 2 cats and 2 frogs.



Mike Craig Metallurgical Technician, Ithaca
Mike has attended Tompkins Cortland Community College and St. Lawrence University where he played lacrosse. His technical work at IMR comes to him easily since he is also a certified HVAC Technician. He loves playing basketball, softball and football and spending time with his daughter.



Mike Day Maintenance, Ithaca
Mike spent 31 years as one of our county's sheriff deputies. To stay active in his retirement Mike works at IMR, is a member of the Lansing Volunteer Fire Department and enjoys camping. He's married with 4 children and 6 grandchildren.



Brian Wackowicz Lead Chemist, Ithaca
Brian graduated from Broome Community College with an associates degree in applied chemistry and chemical engineering technology. In his off time he enjoys golf, riding his Harley Sportster and keeping tabs on "Toby", his Pit Bull Boxer.



Mike Carroll Metallurgist, Charleston
Michael is from the Puget Sound area and earned his B.S. in materials science and engineering from Washington State University. In his free time he enjoys volunteer work, hiking and reading non-fiction.



Joshua Sumner Metallurgical Tech. / Machinist, Louisville
Josh has years of machine shop experience including CNC equipment and robotic welding, as well as management experience. He enjoys spending time with his loved ones and being out on his motorcycle.



Hank Harrington Metallurgical Technician, Ithaca
A former senior induction hardening technician and metallurgy technician at Borg Warner. Hank came to us because, "I was just too bored in retirement." When he's not working at IMR, he's an avid hunter with gun and bow and has 2 grandchildren.



Loralee Scovens Accounting Assistant, Ithaca
Loralee is a newlywed and mother of two. She loves to cook, travel and to tend her garden. She has 20 years of office experience "...from front line receptionist to back line accounting". Loralee would like to return to school to study HR and Business Administration.



Michele Bacon Receptionist, Ithaca
Originally from Connecticut and raised in Florida, Michele was a legal assistant for 17 years and has raised two daughters. More recently she has worked for Cornell University and the Ithaca School District. In her spare time, Michele enjoys antique shopping and loves the peace and quiet of the family camp tucked in the woods near McGraw, NY.



Daniel Shumate Met.Tech./ Report Specialist, Louisville
Dan is a Louisville native who studied business at Jefferson Community College. He has 20 years experience in the metallurgy and chemistry labs of Toyota's Georgetown, KY facility. Dan enjoys motorcycle riding with his soul mate, Shelli. He also enjoys weekend cruises in his muscle car; a '77 Camaro Z28.



IMR Test Labs-Charleston, SC

IMR Test Labs – Charleston continues to increase its customer base as a result of manufacturing expansions in the southeast. To help keep up with increased demand we have upgraded our photographic capabilities with the purchase of a state of the art digital camera and imaging system for metallographic micro-photography.

IMR Test Labs – Charleston recently completed an on-site positive material identification project on a US Navy ship using a helium purged Thermo Niton XL3t900 XRF analyzer. Wil Barwick, lead analytical chemist, spent several days aboard a docked ship pressing his Niton XRF analyzer into action. He analyzed the components of a high-pressure air generation and delivery system. Analyzing the components on location eliminated the need for costly and time-consuming disassembly.

In another fascinating bit of testing, IMR Test Labs – Charleston recently performed chemical analysis on a sample of ballast material recovered from a Civil War era iron clad vessel! The single piece of ballast was one of 80 recovered off the Coast of Sullivan's Island just east of Charleston. The still unidentified 300' ship had extremely thick armor plate. She was lost in a battle, as evidenced by live rounds, melted components and sailor's remains found with the ballast. The ballast's peculiar loaf shape (8"x6"x16" weighing 120 lbs.) was fashioned to fit tightly in the hold of the ship. For stealth, this ship would have run only 12" to 14" above the waterline making operation very treacherous and unstable. Captains were very demanding of how much ballast to take onboard and where to position it. Our client, salvage diver Mike Niles, will stabilize these marine artifacts with a "soak" process. To help prevent further corrosion he uses electrolytic reduction tanks at low amperage to remove the chloride content of the metal. This process can take up to a year to complete. It's Mike's hope to one day get these artifacts into a museum.

First Annual Leadership Summit

Managers from Charleston, Louisville, and Portland converged on the headquarters lab in Ithaca in early July for the first annual leadership summit. The purpose was to share many of IMR's best practices and to collect many of the attributes that customers like about IMR's services. The three-day summit included discussions regarding superior customer service, division capabilities, technical expertise and the many things that go into supporting IMR's goal of being the lowest risk provider of material and product testing services. That means high quality, on time, and with a high level of technical support. The results were so successful that all agreed that this should be an annual event.



Jim's Got Chemistry

The next time you send us a sample it may be handled by IMR's most experienced chemist, Jim Bower. It was 1964 when Jim started his chemistry career as a lab specialist for IBM. Over a 29 year period Jim worked for IBM facilities in Owego and Endicott, NY, Austin, TX and finally in Toronto as its procurement engineer. Jim had built a reputation as a thoughtful manager who always looked out for his employees with compassion and fairness. Everyone wished him a happy retirement.

But retirement didn't sit well with Jim. He joined IMR in its first year of business. Jim currently works in IMR's Combustion Analysis Department and he's a treasure trove of knowledge and experience who generously shares his best practices and experience with co-workers. These include our current Director of Chemistry, Pete Damian. Pete recalls, "Jim showed me how to run the combustion lab and still trains new employees in its use. Even today we still use techniques Jim developed. He's a master of efficiency."

Kristin Poole, the latest Jim Bower protégé, calls Jim "...a loveable curmudgeon with a laid back attitude, who gets the job done."

When away from the red hot crucibles of the combustion lab, Jim enjoys more placid activities; like his extensive vegetable and flower garden, travel, and sharing special times with his wife. His four children and three grandchildren are also a great source of pride for him. Jim loves the flexibility of his part time schedule and plans to keep it that way until Mrs. Bower takes him away from IMR. Jim warns, "She may need me at home to chase the marauding woodchucks out of our garden!"

IMR Metallurgical Services - Louisville

The last year has brought great challenges and growth to IMR - Louisville. We are enjoying a successful year with a steady stream of new and exciting opportunities.

We continue to perform much litigation related metallurgical work including investigation of the collapse of a large sign post, an accidental electrocution, a tank explosion at an industrial facility and a tragic failure that occurred at an amusement park. These high profile evaluations have proven our abilities and professionalism to attorneys and materials experts from all over the nation. Performance of highly-scrutinized investigations continues to be one of our unique strengths. We have also experienced substantial growth in industrial failure analyses, with the petrochemical and refinery industries responsible for the largest increases. The aging of existing refineries and the dearth of new ones suggests that this may be a growing niche for IMR - Louisville.

Our chemistry department is also growing with the volume of tests now higher than ever. New capabilities and greater capacities are being developed to continue the expansion. Mechanical testing has also increased substantially in the last year. The volume increases prompted us to recently hire two additional technicians who almost exclusively perform mechanical testing. A second vertical band saw and a third tensile tester were purchased to accommodate higher test volumes from a number of our clients.



Classes at IMR Test Labs

Aerospace Metallography and Coating Evaluation November 17-21, 2008
IMR Test Labs, Ithaca, NY

The aerospace industry consists of a large number of engine manufacturers, supported by a far greater number of suppliers. Each manufacturer often has their own specifications relating to coating evaluation and disposition. For that reason, IMR Test Labs has developed a training course to meet the training needs of the entire industry.

Practical Fracture Mechanics & Fractography October 20-24, 2008
IMR Test Labs, Ithaca, NY

This ASM Approved course is designed to cover two specific areas: fracture mechanics and fractography. Topics covered include: design and failure analysis for monotonic and cyclic loaded components, practical application of the stress intensity factor and the J integral for monotonic and cyclic loading, materials data trends, laboratory macro- and micro-examination of failed parts, and macro- and micro-fractography.

Classes Scheduled for 2009 at IMR Test Labs, Ithaca, NY include:

Scanning Electron Microscopy March 9-13
Practical Fracture Mechanics & Fractography May 11-15
Introduction to Polymers July 20-23

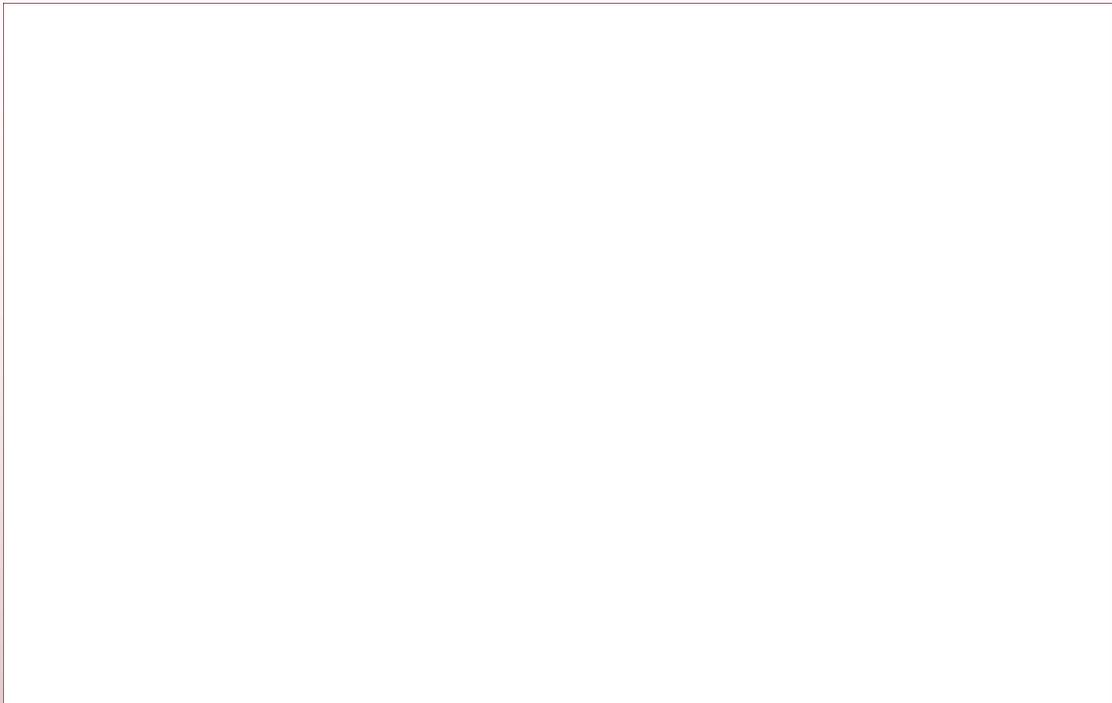
What Do We Test at IMR Test Labs?

In addition to the usual space shuttle part and satellite component here's a small sampling of some of our recent jobs:

Bone screws, spine implants, epoxybased "Tackifier", guitar fret wires, antique Tibetan singing bowls, artist's paint crayons, bear shaped coffee pots, scholastic award medals (checked for lead), breast prosthesis, infrared thermometers, vacuum cleaner power cords, electric guitar pick-ups, tarnish causing musical instrument cases, pulp mill chipping and debarking knives, high security printed labels, stainless steel sauce pans, air conditioner for use in the Pentagon, cabin shaped cookie jar, real teeth (gold filling analysis), Laundromat coin vendors, logo decals for canoes, escalator parts for Giants Stadium, back packable "Trombone Pump" for forest fire-fighters, stainless steel public sculpture, furniture faux leather samples, "mist ponchos" from Niagara Falls, surgical staplers, mom's jewelry that is "infant safe", satellite personal tracker, espresso frothing pitcher, yacht fender (bumper device), weed trimmer line, defibrillator parts, playground equipment bushings, stainless steel chopsticks.

Not just data. Knowledge.

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Spotlighting IMR Volunteers

In previous newsletters we introduced you to Fred Anderson and his work for muscular dystrophy, Barb Andrews' efforts for the American Cancer Society and Mike Parkhurst's 100 mile bicycle rides to raise funds for the local AIDS organization. This time we'll tell you about Amanda Van Slyke and Neil Burns.

Six years ago Amanda, one of IMR's technical report specialist, was diagnosed with Type 1 Diabetes. Since then, she and a team of volunteers have been actively fund raising with BBQ's, bake sales and spaghetti dinners. A recent BBQ at IMR Test Labs - Ithaca, NY raised over \$1,600! For their work, Amanda's team has been honored with an "Excellence in Fundraising Award" from the Juvenile Diabetes Research Foundation.

Neil Burns says, "If I'm not at IMR staring down a microscope, I'm most likely at the Cortland County SPCA picking up dog poop!" He not only helps maintain to the kennels and aid clients with the pet adoption process, Neil also donates his photography talents. Neil photographs each incoming animal for the shelter's pet adoption website. (See Petfinder.com) This introduces them and helps to get them adopted. Neil then selects special photos (like this handsome portrait of "Jack") for use in a beautiful calendar he produces to raise money for the CCSPCA. The no-kill shelter has higher than usual expenses because unadopted pets will not be euthanized. Neil says, "I get a great degree of satisfaction from being part of an organization that offers a safe place for animals that have put up with incredible neglect and have such loyalty to offer."

