MRS NEWS

This issue edited by Drs. Patricia Steeg, National Cancer Institute and Yibin Kang, Princeton University

Notes from the President

Greetings from Down Under

By Erik (Rik) Thompson, Ph.D.
St. Vincent's Institute & University of Melbourne
Department of Surgery,
St. Vincent's Hospital
President, Metastasis Research Society, 2010-2012

This is a very exciting time for me! In many respects, the culmination of my time as President will climax with the MRS 2012 meeting in Brisbane, Australia. The energy around this exciting event is becoming palpable. It's been a terrific lead-up too, with the bustle of our first MRS booth at the AACR meeting in Chicago still fresh. It was great to see so many of you there, to meet so many new people interested in joining, to reaffirm our integration with the TME, and, most notably, to witness the presentation of two major awards to our present and past MRS board members including Yibin Kang and Sue Eccles. Our heartiest congratulations to Yibin and Sue for this well-earned recognition.

Although Australia may not be the easiest destination for some of you, please take this opportunity to join us in September in this extraordinarily beautiful country. Its stunning views never bore me. I am looking forward to seeing one and all of you there including the MRS Board, current and new members, speakers, Young Ambassadors, and new colleagues in JAMR and CMRS. Again, please make every effort to attend!

Best

-Rik Thompson

JUNE 2012

Please visit us at metastasis-research.org

Bringing Metastasis Research to You!

We want your news! As you can see by our new look the MRS Newsletter is undergoing some important changes. Our goal is to make this newsletter and the MRS YOUR society. To this end we need your news and your input. Contacts for the Newsletter Production and Website Improvement are detailed on Page 9 of this newsletter. Please take a moment to share your news and views with us!

Consider joining the MRS. The MRS leadership is working to reinvigorate the society and bring new people and ideas to the society. As part of this process we are sending out newsletters to a broader audience so more people can learn about the MRS. Please consider joining our efforts. Joining is really easy! Just follow the instructions for joining the society which are provided on our website (www.metastasis-research.org). We hope to hear from you soon!

Next.cancer.gov
US National Cancer Institute Experimental Therapeutics Program

By Patricica S. Steeg, National Cancer Institute, Center for Cancer Research

We are all aware of the difficulties in drug development. No one lab is equipped for the myriad of required tasks. At NCI, I have served on drug development committees designed to streamline this process, most prominently as Co-Chair of the NCI's Molecular Targets Faculty. I offer below a personal description of the NExT program and its potential impact. This is a program that metastasis researchers should take advantage of.

Discovery and Development: NExT is divided into two subprograms, Discovery and Development. In Discovery, applicants may have developed a high throughput screening system for a new target, and want to use this process to screen hundreds of thousands of compounds. They have a "hit" from screening initiative or a medicinal chemistry lead compound, again for a new target, and want to develop sufficient preclinical data to make a Go/No-Go decision for clinical testing. This could include formulation (how to best solubilize the compound for best bioavailability), structure-activity relationship (SAR) data (changing the structure of the compound to improve efficacy), pharmacokinetics (PK) (half life, AUC measurements), additional preclinical data in mouse models or other species (two are required eventually), etc.

Things to think about, long and hard, at this stage include:

1. Is the target novel? Is it being pursued by industry? If so, do you have a different approach that may be superior?
2. Is this target compelling? Expression patterns in various cancers and correlations with outcomes are correlations, basically. Functional studies using gene over- and under expression, mutation, etc. will complement expression studies.
3. Think all the way ahead to the clinical trials. How will you determine, in people, that the drug hit the target? The days of x-ray images only are fading, I think. What would be an optimal endpoint for efficacy?
4. If you are developing a drug screen, do your homework. You need a primary high throughput screen, a secondary and probably a tertiary screen, all non-overlapping hopefully. With three different ways to identify an inhibitor of a pathway, you are most likely going to weed out most of the nonspecific hits.
5. If this is a medicinal chemistry approach, the nuts and bolts of the compound: How much do you have on hand, how hard is it to synthesize?
6. What is the Intellectual Property status of this compound? We can work with patented or off patent compounds, but the approach varies.

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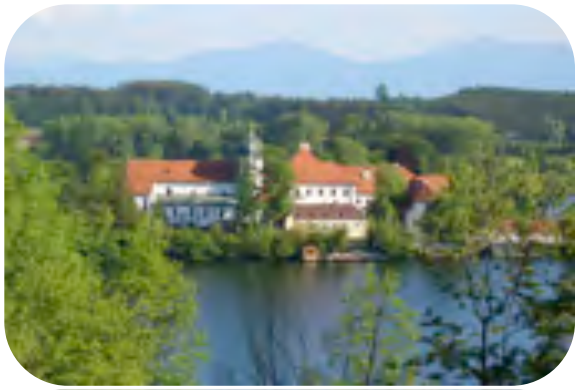
Conference Announcement:
Herrenhausen Symposium on Metastasis
October 8-11, 2012 Kloster Seeon, Seeon, Germany

Forwarded by Yibin Kang, Princeton University



Beautiful Kloster Seeon is located on an island in Seeon, Germany. It is a former monastery.

Nature Medicine and the Volkswagen Foundation are pleased to announce the fifth conference in the Herrenhausen Symposia series, which will focus on metastasis.

What are the most important problems to overcome to make progress in the field of metastasis? *Nature Medicine* polled over 100 experts in order to identify a series of roadblocks to translational research on metastasis. These questions/issues, which fall into six broad categories, will form the basis of the meeting.

Session 1: The metastatic process
Session 2: Molecular mechanisms of metastasis
Session 3: The metastatic niche
Session 4: Modeling metastasis
Session 5: Targeting metastasis
Session 6: Regulatory issues

This three-day meeting will have six, two-hour long sessions, each involving a single theme (as listed above). Each session will begin with five brief, 10 minute talks by thought leaders, including many MRS members, who would be best positioned to speak to the theme

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Featured Scientist: Introducing Hong Leong

By Ann F. Chambers, Ph.D., London Health Sciences Centre, Canada

Let me introduce Dr. Hon Leong, a senior post-doctoral fellow working with my colleague Dr. John Lewis and me (Fig. 1). This photo was taken when Hon's first-authored PLoS One 2012 paper was released. Although we all tried our best to look serious and professional, Fig. 2 shows what really went on at the photoshoot – we had the help of Hon's young daughter, Arwen! In the article below, Hon describes some of the work presented in his PLoS One paper. We thought this exciting approach might be of interest to members of the MRS, as a novel way to regulate function of proteins of interest, both *in vitro* and *in vivo*.

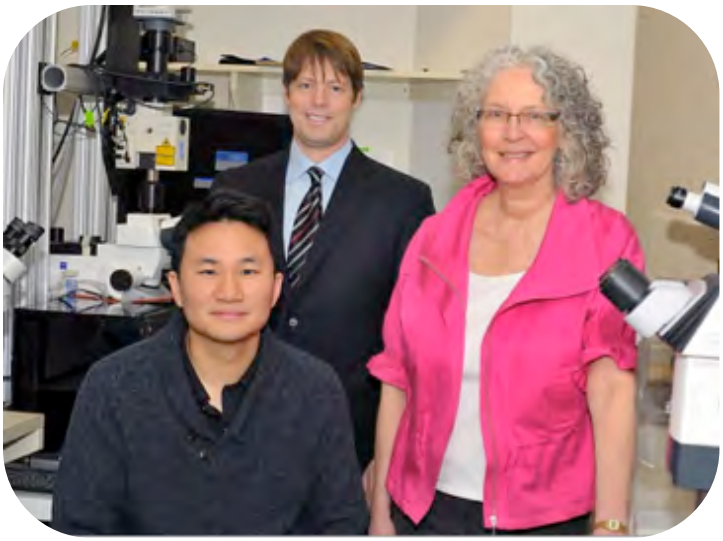

Figure 1. Hon Leong, John Lewis and Ann Chambers (left to right).

Figure 2. Arwen Leong.

Visualizing the impact of transgene expression on cancer cell biophysics *in vivo*

By Hon Leong, Ph.D., London Health Sciences Centre, Canada

Transgene overexpression in cancer cells and techniques to visualize their effects *in vivo* are mainstays of cancer metastasis research. However, the ability to simultaneously visualize and modulate a transgene ON/OFF effect *in vivo* is lacking and needed for characterizing factors such as tumor suppressors. We have recently published a technique that allows exactly that – a means to simultaneously induce and deplete target protein levels within cancer cells and visualize the functional effects of these changes, such as on cell morphology and migration (1). This paper summarizes a technique that coordinates the induction of transgene expression with image acquisition. Importantly, this technique provides an oft-desired means to "toggle" protein activity, a level of control not possible before the development of post-translational methods such as those discovered by Dr. Tom Wandless at Stanford University. Drivers or suppressors of metastasis can now be fully characterized *in vivo* in a single experiment, as opposed to histology-based assessment of individual cancer cells, previously a time-consuming endeavor.

The technique consists of the death domain (DD) tag and Shield-1 ligand induction system (2, 3) paired with the avian embryo intravital imaging model. The protein of interest is fused with the DD tag and when transcribed/translated, is immediately targeted to the cell's proteasome for degradation. However, when the Shield-1 ligand is administered it will bind to the DD tag, altering its structure and stabilizing the entire protein. This allows the protein to become active within the cell and exert its putative function. In our paper, we conducted a proof-of-principle project in which E-cadherin-zsGreen activity is induced in MDA-MB-231LN-tdTomato human breast cancer cells *in vitro* and *in vivo*. By determining the optimal Shield-1 concentration for usage *in vivo*, we were able to perform intravital imaging of cancer cells in metastatic colonies undergoing epithelial-mesenchymal transitions (EMT). Specifically, upon Shield-1 induction and E-cadherin stabilization, the cells underwent a mesenchymal to epithelial transition and upon Shield-1 depletion, these chemically induced cells subsequently reverted back to their original mesenchymal state. This technique offers a definitive and non-invasive means to perturb cellular

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Member in the Spotlight:

Nigel Crawford, M.B. Ch.B., Ph.D.

National Institutes of Health
National Human Genome Research Institute

By Nigel Crawford, M.B. Ch.B., Ph.D.

Dr. Nigel Crawford (bottom row, center)

Nigel Crawford's research seeks to define how genetic variation among individuals influences tumor progression and metastasis in prostate and breast cancer. The overall aim of his research is to identify, at the point of diagnosis, those individuals at greater risk for developing more aggressive cancers. With this knowledge, physicians could consider implementing more aggressive therapeutic regimens.

Although prostate carcinoma is common, only a small proportion of men will actually succumb to the disease. However, the clinical course of prostate cancer is variable, with some men presenting with more aggressive forms of the disease at the time of diagnosis. Genetic predisposition plays an important role in prostate cancer development, and it has been estimated that 5-10 percent of cases have a familial component. These observations form the basis of the research performed in Nigel's lab. His studies explore whether individual genetic variation promotes the development of prostate cancers that are more prone to metastasizing and resistant to therapeutic interventions.

His lab characterizes the differences in tumor growth and metastasis that result when germline polymorphisms are introduced, through selective breeding, into mice prone to developing prostate cancer. His lab uses a number of transgenic mouse models of prostate tumorigenesis, which are crossed with various recombinant inbred mouse strains. Using a statistical method for studying genetic variation called quantitative trait locus (QTL) mapping, Nigel analyzes DNA from the transgene positive offspring these crosses. His goal is to identify multiple sites, called modifier loci, in the mouse genome that drive the development of more aggressive forms of tumorigenesis and metastasis. The researchers in his lab use a combination of methodologies to identify individual candidate genes at each modifier locus. The role of these candidate modifier genes in tumor progression and metastasis will be explored in human prostate tumor progression through a combination of functional analyses and epidemiological association studies.

In addition, Nigel's lab is investigating the role of the *RRP1B* gene in tumor progression and metastasis in breast cancer. *RRP1B* was identified as a metastasis modifier when he was a postdoc in the National Cancer Institute working for Dr. Kent Hunter. By using a well-characterized transgenic model of mouse mammary tumorigenesis, *RRP1B* was identified as a candidate modifier QTL gene for metastasis efficiency. Subsequent experimentation using *in vitro* and *in vivo* modeling in mice demonstrated that activation of the *RRP1B* gene suppresses tumor growth and metastasis, yielding a gene expression signature that can be accurately used to predict survival in human breast cancer. Additionally, it was shown that the human *RRP1B* gene contains variants associated with markers of metastasis and survival in multiple breast cancer epidemiological cohorts.

In recent breast cancer studies, Nigel has focused on the function of *RRP1B*, which had previously been a poorly characterized protein. His analyses have explored the interaction of *RRP1B* with other proteins, particularly with a number of nucleosome-binding proteins that are potent modulators of gene expression and chromatin structure. The laboratory is using chromatin immunoprecipitation and "next-generation" DNA sequencing methodologies to identify promoter sequences that bind *RRP1B as well as characterizing the role of this gene in alternative mRNA splicing*. Nigel expects these studies to provide greater insight into the function of this metastasis suppressor and how dysregulation of *RRP1B* gene expression has such potent effects on global gene expression.

AACR Awards for Past and Present MRS Executives

By Rik Thompson, St. Vincent's Hospital, Australia

The 2012 AACR meeting in Chicago in April was, as always, and absolute hubub of excellent science and delegate frenzy, but through the madding crowd shone two very notable achievements for MRS in these awards.

Dr. Sue Eccles (second from right) pictured with members of a multidisciplinary team from The Institute of Cancer Research and The Royal Marsden Hospital. Picture provided by Rik Thompson.

Past MRS president Sue Eccles was part of a multidisciplinary team from The Institute of Cancer Research (ICR) and The Royal Marsden Hospital, which won the AACR Team Science Award for its success in taking new cancer drugs from concept to patients. The team comprises the Cancer Research UK Cancer Therapeutics Unit at the ICR where Sue has worked for many years, which discovers new drugs, and the Drug Development Unit at the ICR and The Royal Marsden, which progresses drug candidates into clinical trials. The AACR highlighted the team's world-leading discovery of 16 innovative drugs over the past six years, and the progression of six of these drugs into Phase I clinical trials, including highly innovative and promising inhibitors of HSP90, PI3 kinases, protein kinase B/AKT and cyclin-dependent kinases. Well done Sue for waving the MRS flag and I'm sure you are keeping the team focused on metastasis!

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Herrenhausen Symposium

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of the session. The talks will then be followed by a one-hour discussion amongst the entire group in attendance trying to develop answers to the questions at hand. The intent is to facilitate discussion amongst researchers from all areas of metastasis, encouraging cross talk between disciplines. No standard research talk will be given, but instead speakers are asked to highlight the major barriers relevant to the topic of the session, which may or may not include examples from their own research.

The symposium will be a closed event. **In addition to the invited speakers, 10-15 attendees will be chosen to participate on the basis of their application for admission.** Preference will be given to young and early-career investigators (assistant professors, lecturers, research associates, postdoctoral researchers and clinical fellows) who are currently working in related areas.

The deadline of application is July 10th, 2012. Application is available online at: http://www.nature.com/natureconferences/hhs2012m/index.html

Metastasis 2012!

Save the dates and pre-register your interest by visiting:

http://www.metastasis-research2012.org/

A Happy 90th Birthday Kurt Hellman!
Kurt Hellman, D.M., D.Phil. Oxon.

By Sue Eccles, Ph.D., The Institute of Cancer Research
Edited by Carrie Rinker-Schaeffer, Ph.D.

Dr. Kurt Hellman working on a drug called ICRF 159. Photo from Daily Telegraph Magazine, Jan. 26, 1973.

May 12th marked the 90th birthday of medical pharmacologist Dr. Kurt Hellmann. A pioneer in metastasis research, his foresight in science and medicine remains unparalleled. Born in Bavaria, Kurt emigrated to England at age 10. He served as a wartime engineer, then embarked on his scientific career, first by studying chemistry, and then earning a Ph.D. in Pharmacology, a BM ChB in Medicine and a D.M. Degree. In 1962 he became the Director of the newly-formed Department of Cancer Chemotherapy at the Imperial Cancer Research Fund London - a post that he held until 1987. At the same time, he continued to be clinically active, serving as a Visiting Professor in the Radiotherapy & Oncology Department at the Imperial College from 1972 - 1993.

Harnessing his seemingly limitless energy and passion for scholarship, he and Stephen Carter co-founded '*Cancer Treatment Reviews*.' The journal's purpose: to analyse emerging data in a thought-provoking style in order to stimulate advances in research and treatment. Working with Stephen Carter and Marie Bakowski, he published *Chemotherapy of Cancer* a convenient reference and guidebook for practising medical oncologists. To bring scientists together, he organized the first meeting of the E.O.R.T.C. Metastasis Club (1974). In repsonse to growing interest in metastasis, he helped found our wonderful Metastasis Research Society. Our journal, *Clinical & Experimental Metastasis*, is now a high profile specialist journal with an impact factor fast approaching 5.0.

Kurt's inspired research and a close eye for detail are beautifully illustrated by the story of razoxane (1). In 1966, the antimetastatic activity of razoxane was discovered by chance. Specifically, based on its characteristics the Lewis lung carcinoma model (3LL) was chosen to screen compounds for antimetastatic activity. Remarkably, the first compound to be tested that inhibited all of the metastases in all of the animals without affecting the primary tumor was razoxane. Further, studies showed that razoxane achieves this effect by normalizing the chaotic structure of the tumor-induced vasculature. This prevents intra-tumoral haemorrhage and subsequent dissemination and growth of cells into lethal metastases (2, 3). This crucial finding, published in 1972, predates *by decades* the more recent flurry of interest in the concept of reverting of tumour vasculature as a therapeutic strategy.

Clinically, use of razoxane as an adjuvant treatment in colon cancer can prevent liver metastases. It can also potentiate chemoradiotherapy to suppress metastasis in soft tissue sarcomas. However, its role in disease management goes beyond controlling metastases. Studies initiated in the early 1970's found that its highly water-soluble pure enantiomer (+) dexrazoxane [ICRF 187] provides effective, long-term cardioprotection in breast cancer patients with no additional toxicities. Currently, dexrazoxane is the only FDA/EMA approved agent for preventing anthracycline-induced cardiotoxicity. Similarly, a landmark prospective, randomised, multicentre trial of doxorubicin-treated children with high-risk acute lymphoblastic leukaemia showed that dexrazoxane provides cardioprotection without compromising oncological efficacy or enhancing the rate of second malignancies in the long-term follow-up. Given that new applications and efficacies for these compounds continue to be discovered, it is remarkable to think that this amazing adventure in translational research started with a screen many thought could never succeed. And yet, this first step enabled discoveries and applications far beyond anything envisaged in those pioneering days at Lincoln's Inn Fields. Inspiring!

Through his scholarship, leadership, and research, Kurt's contributions have forever changed our basic understanding and clinical managment of malignancies. For these dedicated efforts he has earned numerous awards and honors, and yet, his view is tempered with wit and grit gained over the years. What is his advice to all of us traveling the twisted yellow brick road of translational research? His reply, with a characteristic chuckle, "You just have to live long enough...! "

Kurt Hellmann continues to be active as a writer, advisor, critical discussant and benefactor of pharmacological drug research and education, supported by his wife Jane, a former doctor with the blood transfusion services and a talented gardener.

We would like to express our gratitude

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AACR Awards for Past and Present MRS Executives…(Continued from page 5)

Drs. Yibin Kang (left) and Rik Thompson (right) at the 2012 AACR Annual Meeting. Picture provided by Rik Thompson.

Current board member Yibin Kang, Professor of Molecular Biology at Princeton University, was also presented with the 32nd Annual AACR Award for Outstanding Achievement in Cancer Research, for his research in furthering the molecular understanding of cancer metastasis. Yibin received his doctorate in genetics from Duke University in Durham, N.C. and conducted postdoctoral work at Memorial Sloan-Kettering Cancer Center in New York, N.Y., with Joan Massague (himself a previous winner of the Inaugural AACR Distinguished Leadership Award in Breast Cancer Research in 2008 and the 2012 Paget-Ewing Award from MRS!) and joined the faculty of Princeton University, Princeton, N.J., in 2004. Yibin has published more than 70 novel research articles, and received numerous awards including the AIMM-ASBMR John Haddad Young Investigator Award and the American Cancer Society Research Scholar Award. He was one of five individuals to receive the prestigious 2006 Department of Defense Era of Hope Scholar Award, and last year, he received the Vilcek Prize for Creative Promise in Biomedical Sciences, a prestigious award honouring young immigrant scientists who have demonstrated exceptional creativity and originality in the early stages of their careers in the United States.

It was a great pleasure to attend the awards ceremony and hear these terrific awards lectures. Congratulations to you both from all of MRS and our affiliates.

MRS 2012 IS UPON US!

Contributed by Rik Thompson (convenor) and Robin Anderson (co-convenor)

The 14th Biennial meeting of the MRS is coming soon (September 2-5, 2012) after a long and windy road. We are pleased to be able to host this historic union of the MRS, JAMR and CMRS, and hope that it will be the first of many shared meetings. We are grateful to all those who have contributed – to our co-conveners from our sister societies, our international program committee, our local organizing committee, Dr. Lalita Samant and her team of Young MRS Ambassadors and last, but by no means least, the team at ASN, our conference organizers.

With some assistance from MRS itself, we have now a well-established program, with several outstanding plenary speakers, two highly esteemed award lecturers, 17 invited speakers, 12 young investigators and room for up to 19 short talks to be selected from abstracts. We are now planning the receptions, dinner, and other events to allow interactions, along with the CTx-sponsored 'meet the professors' session and a breakfast forum with Consumer Advocates. The MRS general meeting is planned for Wednesday lunchtime, with lunchtime trade sessions also provided on other days. Don't miss the chance to interact directly with Dr. Gemma Alderton, Senior Editor for Nature Reviews Cancer, who is sponsoring the poster prize! It is a great opportunity to promote our area of research. As always, if you have suggestions for the meeting, please email us. It is so gratifying to see the pieces falling into place and registrations rolling in. Please see the website http://www.metastasis-research2012.org/ for more details.

Next.cancer.gov
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7. What are the problems? Nothing is without problems and I find it better to acknowledge them upfront.

In Development, one almost has the required data to enter a clinical trial. The closer you get to a trial, the more expensive and technically challenging the experiments become. The goal of Development applications is clinical, be it early or later phase trials. All of the significant questions above are examined with greater rigor, due to the expense, time commitment and importance of the effort to be funded.

Getting to NExT: It's just an application. Go to the website, you will find the forms. Applications are reviewed three times annually by a Special Emphasis Panel, not a traditional study section, and then work up the chain of command at NCI. This program sets a high bar, I would not go into it with anything half-baked and expect a positive outcome.

NExT has developed a consortium of expertise, the Chemical Biology Consortium (http://www.cancer.gov/aboutnci/ncicancerbulletin/archive/2009/081109/page5). This group, together with NCI Intramural scientists, will work with the PI on approved applications. The NExT program also works with the NCI National Target Validation Laboratory and the Cancer Imaging Program, two aspects vital to good pharmacodynamics readouts. In collaboration with the PI, the project is broken into segments where further Go/No-Go decisions are made. A project manager is assigned to keep track of progress and schedule consultations.

Thoughts on metastasis related leads: I believe (just a personal opinion) that NExT may be a great place to finally develop more metastasis lead compounds. Metastasis targets are novel. They are certainly not the bread and butter of industry. They will require intense thought on preclinical validation and clinical trial design. NexT appears to be a group willing to take on new challenges, so this may be a natural home for new metastasis ideas.

Good Luck!

Featured Scientist:
Hong Leong, Ph.D.
…(Continued from page 3)

functions with transgenes deemed to have anti-metastatic effects *in vivo*.

Selected References:

1. Leong HS, Lizardo MM, Ablack A, et al. Imaging the impact of chemically inducible proteins on cellular dynamics in vivo. PLoS One 2012;7:e30177.
2. Banaszynski LA, Chen LC, Maynard-Smith LA, Ooi AG, Wandless TJ. A rapid, reversible, and tunable method to regulate protein function in living cells using synthetic small molecules. Cell 2006;126:995-1004.
3. Banaszynski LA, Sellmyer MA, Contag CH, Wandless TJ, Thorne SH. Chemical control of protein stability and function in living mice. Nat Med 2008;14:1123-7.

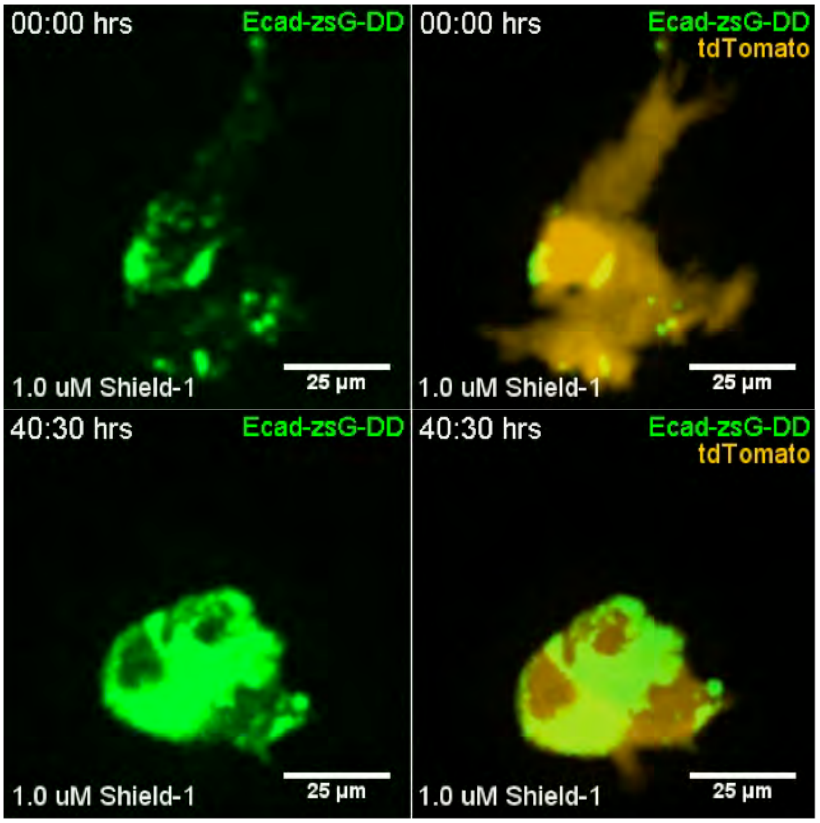


Figure 3. Chemical induction of E-cadherin-zsGreen activity induces a morphological change in MDA-MB-231LN cells. Intravenous injection of Shield-1 to achieve a final in vivo concentration of 1.0 uM results in this metastatic colony transitioning from a mesenchymal morphology to an epithelial morphology.

NEWSFLASH!! MEMBER ARTICLES

Metastasis: The rude awakening.
By Jocelyn Rice
Nature. 2012 May 30;485(7400):S55-7. doi: 10.1038/485S55a.
PMID: 22648500

Perspective: The right trials.
By Patricia S. Steeg
Nature. 2012 May 30;485(7400):S58-9. doi: 10.1038/485S58a.
PMID: 22648501

Kurt Hellman
…(Continued from page 6)

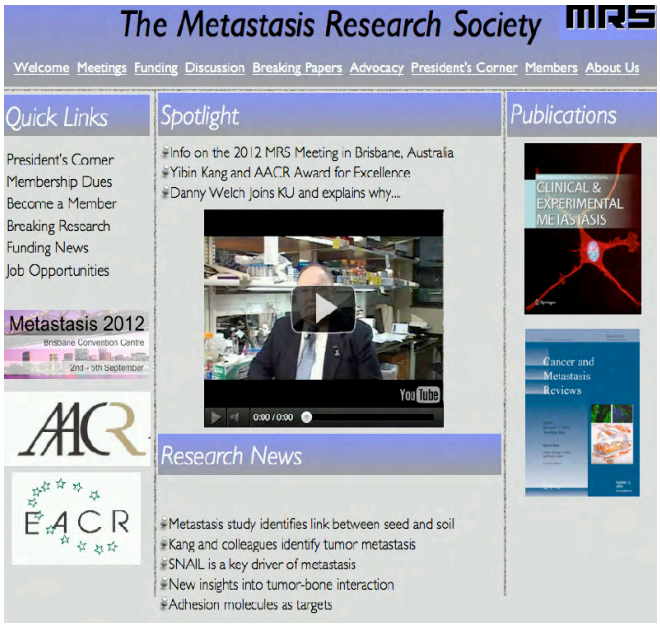
to Ian Hart, PhD, former Professor of Tumour Biology and Deputy Director of Barts Cancer Institute, Queen Mary, University of London, and to Eugene Herman,PhD, Research Pharmacologist, Food and Drug Administration, Division of Applied Pharmacology Research, Silver Spring, Maryland, USA, for contributions and memories

Websites:
Metastasis Research Society: www.metastasis-research.org
Clinical & Experimental Metastasis: http://www.springer.com/biomed/cancer/journal/10585
MRS Brisbane 2012 (Sept 2nd -5th): http://www.metastasis-research2012.org

WEBSITE ENHANCEMENT INITIATIVE

Led by Conor Lynch, Ph.D. - Moffitt Cancer Center

We have been busy conceptualizing elements of the Web Enhancement Committee's report. To this end, we generated a demo-website in order to visualize some of the ideas that were put forward. These ideas include, but by no means are limited to:
1) Redesigning the aesthetics of the website.
2) Introducing frequent updates on breaking research.
3) Utilizing blogs and RSS feeds to keep content fresh and informative.
4) Making use of video technology to broadcast webinars.
5) The generation of an op/ed President's corner.
6) Improved membership services including membership directory with brief bio-sketches in order to facilitate interaction and collaboration.
The development of the website is not a finished product and so if you have some ideas or thoughts you would like to see incorporated please contact us. Ultimately, this demo-website will be presented to the president and board of directors and with their approval, we can then implement a formal plan of design in collaboration with a professional website developer.



Screen shot of demo website

NEWSLETTER IMPROVEMENT INITIATIVE

Produced by Amy Johnson, Managing Editor, The University of Chicago

Summer is well upon us in Chicago. Hopefully, the summer provides time to relax and read outdoors. For those interested in metastasis (Yes, that would be you!), fabulous reading material includes articles that MRS members have authored. Included in this MRS News and future editions, there is a section titled "Newsflash" that will list MRS member articles. If you would like your articles included in "Newsflash", please forward them to me at ajohnson13@uchicago.edu. Please enjoy summer and I hope to hear from you soon.