Molecular Medicine

Podcast Transcript
Episode 26

Hello everyone and welcome back to "Mollie Medcast," the podcast for the biomedical journal, *Molecular Medicine*. My name is Margot Puerta. I'm the Associate Editor here at Molecular Medicine and your host for this podcast episode. In this week's podcast: our cover story from our July/August 2008 issue "Silencing Hepatocellular Carcinoma," also, "Remodel Your Walls With SM22α," and our Review And Asses paper or RNA paper for this episode "Aggregating Alzheimer's And Parkinson's."

Let me take a minute to remind you about what our goal here at Molecular Medicine is. Our mission is to publish novel work that's concerned with understanding the pathogenesis of disease at the molecular level, which may lead to the design of specific molecular tools for diagnosis, treatment and prevention. If you are interested in submitting a manuscript to the journal, please visit our website for information, www.molmed.org. Okay, so let's get started with the papers for this podcast. The first paper in this "Mollie Medcast" episode is:

Silencing Hepatocellular Carcinoma

Hepatocellular carcinoma or HCC is a type of liver cancer that may occur in conjunction with cirrhosis, which is an accumulation of scar tissue in the liver. Several factors contribute to cirrhosis with one of the most common being chronic alcohol abuse. Vascular endothelial growth factor, or VEGF, plays a role in tumor angiogenesis and in this work, Dr. Miroslaw Kornek and colleagues from the University Hospital in Bonn, Germany and the Institute of *Molecular Medicine* and Experimental Immunology also in Bonn, Germany sought to interrupt the VEGF pathway using gene silencing in a model of hepatocellular carcinoma with preexisting liver fibrosis. The title of the paper is, "DOTAP Formulated Immune-Stimulatory VEGF-A siRNA Increases Antitumoral Efficacy in Murine Orthotopic Hepatocellular Carcinoma with Liver Fibrosis." Treatment with VEGF-A small interfering RNA was efficient when combined with the cationic lipid DOTAP. These results may help direct and improve future experimental gene silencing approaches in order to establish more efficient anti-tumoral therapies against hepatocellular carcinoma.

Next up:

Remodel Your Walls With SM22α

Hypertension, or high blood pressure, is one of the main risk factors for vascular disease. However, many people with hypertension don't exhibit signs of high blood pressure and therefore don't even know they have it. There is no immediate need for biomarkers to assess blood pressure, however, markers of vascular remodeling in response to high blood pressure is of interest because such markers could be used to evaluate damage to the arteries before clinical complications occur. To explore markers of hypertension-related morbidity, Dr. Sandrine Delbosc and her colleagues from France and California investigated changes in proteins released by the aorta in two animal models with differing susceptibility to hypertension. The title of their paper is, "Proteomic Analysis Permits the Identification of New Biomarkers of Arterial Wall Remodeling in Hypertension." Their results indicate that a greater susceptibility to endothelial dysfunction is associated with aortic wall hypertrophic remodeling. Delbosc and colleagues also identified SM22α as a potential marker of susceptibility to hypertension-induced arterial wall remodeling.

And last up, our "Review and Assess" article for this week's podcast:

Aggregating Alzheimer's And Parkinson's

Developing effective treatments for neurodegenerative diseases is one of the greatest medical challenges of the 21st century. Protein aggregation is a common feature of many neurodegenerative diseases and is assumed to play a central role in pathogenesis. In this review paper, Dr. Irvine and colleagues discuss protein aggregation as it relates to Alzheimer's and Parkinson's diseases. The paper title is, "Protein Aggregation in the Brain: The Molecular Basis for Alzheimer's and Parkinson's Diseases." Now, also in this issue of *Molecular Medicine* is a Commentary discussing molecular medicine successes in neuroscience, and it cites this Irvine review article. So if you're interested in neurodegenerative diseases you might want to check that one out.

Alzheimer's and Parkinson's generally affect the aging population and for those who are interested, the North Shore-LIJ Health System on Long Island (http://www.northshorelij.com) has over 1000 clinical research studies going on right now in a variety of diseases. Several of these deal with Alzheimer's and Parkinson's. So if you are interested in finding out more about this or any of our other studies, you can call the following number 516-562-4874. That number again is 516-562-4874 and ask for Ruth. You can also find this information on our *Molecular Medicine* website www.molmed.org. Go to the podcast link and select the transcript for this episode which is number 26. You'll be able to see the website for North-Shore-LIJ and see this phone number.

That's it for this episode of "Mollie Medcast". Join us next time when we'll look at PPAR gamma ligands in prostate cancer and mechanisms of acute lung injury. You can find all these papers and many more of them on our website, www.molmed.org that's www.m-o-l-m-e-d.org. For questions or comments regarding this podcast, please send me an email at: margot@molmed.org. And, if you're taking a quick coffee break and have a moment, check out our podcast webpage www.molmed.org/podcast. You can play around with our frappr map and see where other *Molecular Medicine* readers are coming from. Help us expand our community by adding your very own pin to the map. If you're not shy you can even include your picture. This podcast is available on molmed.org and is up in iTunes. Molecular Medicine is published bimonthly by The Feinstein Institute for Medical Research.

From Long Island, New York, this is margot@molmed.org, thanks for listening!

Written and Produced by Margot Gallowitsch-Puerta
Associate Editor, *Molecular Medicine*
Music: Opuzz.com
Photos: iStock