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46
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9th ANNUAL DEPARTMENT OF PATHOLOGY YOUNG INVESTIGATORS' DAY POSTER SESSION

Thursday, April 5th, 2007

TURNER CONCOURSE

REGISTRATION FORM

E-mail COMPLETED Registration form and abstract to:
Stacey Morgan (smorgan9@jhmi.edu) on or before
Friday, March 16th, 2007

If you have questions or problems regarding your submission, please contact Stacey Morgan via e-mail (smorgan9@jhmi.edu)

Applicant's Name: ____Shien Micchelli_____ Degree: __M.D., M.S.__

Applicant's Division: ____Pathology_____

Faculty Preceptor: _____Michael Torbenson_____
(Must hold a primary appointment in Pathology)

Appointment Category: __X__House Staff _____Clin Fellow _____Research Fellow

_____Medical Student _____Graduate Student (Program:_____)

Register for: _____ Clinical Research _X__Translational Research _____Basic Research

Full Poster Title * ___Fibrolamellar Carcinomas but not Typcial Hepatocellular Carcinomas are Positive for Anterior Gradient-2_____

Where has the work been presented?

Meeting Name _____

Meeting Date _____

Not Previously Presented _____X_____

Where is this work being published? _____NA_____

Journal Name, Volume, Page, Date _____

In Preparation _____

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***INCLUDE A ONE-PAGE ABSTRACT (including title and all authors) OF THE WORK YOU WILL BE PRESENTING**

Background:
Anterior Gradient-2 is critical in forming the anterior-posterior gradient in embryonic development. Interestingly, gene expression studies have suggested it may also play a role in hepatocellular carcinogenesis.

Materials & Methods:
Immunohistochemistry was performed on tissue microarrays that included typical hepatocellular carcinomas (HCC), fibrolamellar carcinomas and hepatic adenomas. Staining distribution was scored on a scale of 1-4: 1 (from 5-25%), 2 (26-50%), 3 (51-75%) and 4 (>76%). Intensity was graded on a scale of 1-3. Benign colon served as a positive control.

Results:
Only 2/40 (5%) typical HCC were positive for Anterior Gradient-2. In contrast, 6/8 (75%) of fibrolamellar and 3/4 (75%) metastatic fibrolamellar carcinomas were positive. The median distribution was 2, and the median intensity was 2. All 9 of the hepatic adenomas were negative. In the non-neoplastic livers, septal-sized bile ducts were positive, while smaller ducts were negative. In addition, 11/57 (19%) cases with background non-neoplastic liver showed weak immunostaining, limited to zone 3 hepatocytes.

Conclusion:
Anterior Gradient-2 is normally expressed in septal-sized bile duct and in zone 3 hepatocytes. The majority of fibrolamellar carcinomas (both primary and metastatic) are positive for Anterior Gradient-2, while most HCC and all hepatic adenomas are negative.

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