Abstract #152163

Evaluation of a Multi-Level, Multi-Parameter Detection Method for Digestive System Cancer Diagnosis
Hong Zhao(1), Ye Fan Zhang(1), Xin Yu Bi(1), Zhen Huang(1), Jian Qiang Cai(1), Tang Xing(2), Lou Da(3), Xue Dong Du(2), Chris Yu(2)(3)

Department: (1) Dept. of Abdominal Surgical Oncology, Cancer Hospital, Chinese Academy Of Medical Sciences, Beijing, China, Zip code: 100000 (2) AnPac Bio-Medical Science Co., Ltd., Room# 306, 105 Sinan Road, Shanghai, China, Zip code: 200025 (3)

Corresponding author, address in (2); chris_yu@anpac.cn.

Xue Dong Du, Chris Chang Yu, Xue Dong Du; Anpac Biomedical Science Co., Ltd., Shanghai, China; Anpac Bio-Medical Science Co Ltd, Shanghai, China

Abstract Text:

Background: Despite efforts in recent years, major progress in cancer diagnosis remains to be elusive. Existing issues include inability to detect cancer early, relatively low sensitivity and specificity, side effects (for some imaging based technologies), and relatively high costs. In this work, an initial evaluation was carried out on diagnosis of two digestive cancer sites, hepatocellular carcinoma (HCC) and colorectal cancer, using a method named Cancer Differentiation Analysis technology (CDA) which measures both protein and cellular level information in blood in a single test. A performance comparison was made between CDA technology and traditional bio-marker method.

Methods: Blood samples for HCC, colorectal cancer, and control groups were collected, and data were then taken with both bio-marker (serum alpha-fetoprotein (AFP) and carcinoembryonic antigen (CEA)) and CDA methods. Results: The measured CDA value showed significant statistical difference between the control (20 samples), HCC group (9 samples) and colorectal cancer (6 samples) with P < 0.01. In HCC group, CDA has a sensitivity of 77% (7 of 9) while AFP has a sensitivity of 33% (3 of 9), and specificity was comparable. In colorectal cancer, CDA has a sensitivity of 83% (5 of 6) while CEA has a sensitivity of 33% (2 of 6) with comparable specificity. Given the limited sample size, more data will be collected to further confirm the initial results. Conclusions: Based on preliminary, limited data using the new multi-level, multi-parameter blood test method (CDA technology) for HCC and colorectal cancer diagnostics, sensitivity was improved over the traditional bio-marker technology.

Keywords: digestive system cancer diagnosis, colorectal cancer
Title: Evaluation of a Multi-Level, Multi-Parameter Detection Method for Digestive System Cancer Diagnosis

Hong Zhao(1), Ye Fan Zhang(1), Xin Yu Bi(1), Zhen Huang(1), Jian Qiang Cai(1), Tang Xing(2), Lou Da(3), Xue Dong Du(2), Chris Yu(2)(3) Department: (1) Dept. of Abdominal Surgical Oncology, Cancer Hospital, Chinese Academy of Medical Sciences, Beijing, China. Zip code: 100000 (2) AnPac Bio-Medical Science Co., Ltd., Room# 306, 105 Sinan Road, Shanghai, China. Zip code: 200025 (3) Corresponding author, address in (2); chris_yu@anpac.cn.

Submitter's E-mail Address: chris_yu@anpac.cn

Is this a late-breaking abstract? No
Is this abstract a clinical trial? No
Would like to be considered for a Merit Award: No
Presentation Format: Regular

Trial Type: Prevention
Research Category: Laboratory
Continued Trial Accrual: No
Received Grant funding: No
Relevant to geriatric oncology: No
Sponsor: Lindsay M Rowan

First Author

Presenting Author
Xue Dong Du, MS
Anpac Biomedical Science Co., Ltd.
Shanghai, 200025
China
Phone Number: 8613761482005
Email: a22com@yahoo.com

Click to view Conflict of Interest Disclosure

Second Author

Corresponding Author
Chris Chang Yu
Anpac Bio-Medical Science Co Ltd
Room 306 No 105 Sinan Road Shanghai
Shanghai, 200025
China
Email: chris_yu@anpac.cn

Click to view Conflict of Interest Disclosure

Third Author

Xue Dong Du, MS
Anpac Biomedical Science Co., Ltd.
Shanghai, 200025
China
Phone Number: 8613761482005
Email: otterloonsmy@yahoo.com

Click to view Conflict of Interest Disclosure

Employment No
Leadership No
Stock and Other Ownership Interests No
Honoraria No
Consulting or Advisory Role No
Speakers’ Bureau No

https://asco.confex.com/asco/2015/sci/papers/viewonly.cgi?password=410357&username... 2015/2/4
Research Funding  No
Patents, Royalties, Other Intellectual Property  Yes

<table>
<thead>
<tr>
<th>Company</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anpac Biomedical Science</td>
<td>You</td>
</tr>
</tbody>
</table>

Expert Testimony  No
Travel, Accommodations, Expenses  No
Other Relationship  No

Has this author participated in a speakers’ bureau?  No
Has this author been an employee of any for-profit company that funded all or part of this research?  No
Has this author had a significant ownership interest in any for-profit health care company?  No