**Title:** TEST APPARATUS AND METHODS FOR ST2 CARDIAC BIOMARKER

**Abstract:** The technology described in this document can be embodied in a test strip for use in measuring a level of an ST2 cardiac biomarker in a blood plasma sample. The test strip includes a base, and a plurality of conjugates, wherein each conjugate includes a reporter group bound to a first antibody that binds to ST2. A conjugate pad disposed along a length of the base and is configured to hold the plurality of conjugates that bind with ST2 to produce conjugate-ST2 complexes. The conjugate pad is further configured to receive the blood plasma sample. The test strip also includes a plurality of second and third antibodies that bind to ST2, and the conjugate-ST2 complexes, respectively. The plurality of second antibodies are bound to a membrane in a test location and the plurality of third antibodies are bound to the membrane in a control location.
Published: 2016/094761 A 3

(88) Date of publication of the international search report:
— with international search report (Art. 21(3))

25 August 2016
A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G01N 33/53 (2016.01)
CPC - G01N 33/53 (2016.02)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - C07K 9/00 ; G01N 33/53, 33/558, 33/68 (2016.01)
CPC - C07K 9/00 ; G01N 33/53, 33/558, 33/6854 (2016.02)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 422/430 ; 435/7.1, 7.92, 287.2, 514, 970 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Orbit, Google Patents, Google Scholar.

Search terms used: ELISA, immunoassay, lateral flow, test, strip, card, antibody, monoclonal, colloidal, gold, projection, control, regulate, achieve, ST2, ST2L, IL1RL1, IL33R, ST2V, DERA, FIT1, heart, cardiac, RFID

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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<tbody>
<tr>
<td>X</td>
<td>CN 102830234 A (HANGZHOU HUADESEN BIOTECHNOLOGY CO LTD) 19 December 2012 (12.12.2012) entire document; see machine translation</td>
<td>1-9, 12, 13, 22-30, 33, 34</td>
</tr>
<tr>
<td>Y</td>
<td>WO 2014/070935 A1 (ASTUTE MEDICAL, INC.) 08 May 2014 (08.05.2014) entire document</td>
<td>14-19, 35-41</td>
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<td>Y</td>
<td>CN 203502418 U (SHUJIAZHONG HUAN ZHONG BIOLOGICAL SCIENCE AND TECHNOLOGY CO LTD) 26 March 2014 (26.03.2014) entire document; see machine translation</td>
<td>20, 21</td>
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<td>A</td>
<td>CN 203759015 U (CHENGDU DEFENCE FIELD OF BIOLOGICAL TECHNOLOGY CO LTD) 06 August 2014 (06.08.2014) entire document; see machine translation</td>
<td>1-41</td>
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See patent family annex.

Additional documents are listed in the continuation of Box C.

Date of the actual completion of the international search: 05 February 2016

Date of mailing of the international search report: 23 FEB 2016

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