

ASX/Media Release (Code: ASX: PRR; NASDAQ: PBMD)

11 December 2015

### **PRIMA BIOMED PROGRESSES JAPANESE COLLABORATION**

- New Material Transfer Agreement (MTA) concluded with Yamaguchi University and NEC Corporation
- Parties have combined a cancer vaccine with Prima's IMP321 Antigen Presenting Cell (APC) activator
- Pre-clinical work has shown that low dose IMP321 co-injected with a peptide vaccine is safe
- Yamaguchi University intends to initiate clinical research in different cancer indications

SYDNEY, AUSTRALIA - Prima BioMed Ltd (ASX: PRR; NASDAQ: PBMD) today announces important progress in its collaboration with NEC Corporation and Yamaguchi University in Japan. In this collaboration, first announced in May 2015, Prima's IMP321 Antigen Presenting Cell activator (APC) is being combined with a therapeutic vaccine for different carcinoma types that was developed at Yamaguchi University.

The Yamaguchi/Prima collaboration resulted from evidence that IMP321 at low doses can be used as a T cell adjuvant for cancer vaccines because of IMP321's ability to activate dendritic cells<sup>1</sup>. Under the original May 2015 agreement, scientists at Yamaguchi University and NEC have designed and conducted *in vivo* studies of the combination, in work supported by NEC Corporation. Favourable safety data from these studies has now resulted in a decision to progress the vaccine into clinical research. Under a new Material Transfer Agreement (MTA), Yamaguchi University will now work towards clinical research in cancer patients, which will be initiated in Japan in the first quarter of 2016. As with the *in vivo* work, this proof-of-concept research will be supported by NEC Corporation.

Marc Voigt, Chief Executive of Prima, welcomed the signing of the new MTA: "We are very pleased with the progress our collaborators at Yamaguchi University have made in just six months of work. We see significant upside from this work for cancer patients, given the current limited treatment options for many tumour types and the ease with which we think IMP321 can be used in combination with other therapies".

Yamaguchi University President Dr Masaaki Oka commented, "I am proud of our teams' work in cancer vaccines, given the increasing importance of immuno-oncology to the future of cancer medicine. We thank Prima BioMed and NEC Corporation for their support and look forward to continued progress".

---

<sup>1</sup> See Clin Cancer Res. 2008 Jun 1;14(11):3545-54

For personal use only

## About IMP321

IMP321, a first-in-class Antigen Presenting Cell (APC) activator based on the immune checkpoint LAG-3, represents one of the first proposed active immunotherapy drugs in which the patient's own immune system is harnessed to respond to tumour antigenic debris created by chemotherapy. As an APC activator IMP321 boosts the network of dendritic cells in the body that can respond to tumour antigens for a better anti-tumour CD8 T cell response. IMP321 has been shown in an open-label Phase I study to be able to double the expected six-month response rate in HER-2 negative metastatic breast cancer patients receiving standard-of-care paclitaxel, from a 25% historic response rate (RECIST criteria)<sup>2</sup> to 50% when combined with IMP321<sup>3</sup>.

## About Yamaguchi University

Founded in 1949 and located in Yamaguchi Prefecture in southern Japan, Yamaguchi University is a regional center of academic research as well as higher education and in the Japanese national university system. The University is known for basic and applied research in a wide variety of fields.

## About NEC Corporation

NEC Corporation is a leader in the integration of IT and network technologies that benefit businesses and people around the world. By providing a combination of products and solutions that cross utilize the company's experience and global resources, NEC Corporation's advanced technologies meet the complex and ever-changing needs of its customers. NEC Corporation brings more than 100 years of expertise in technological innovation to empower people, businesses and society. For more information, visit NEC at [www.nec.com](http://www.nec.com).

## About Prima BioMed

Prima BioMed is a globally active biotechnology company that is striving to become a leader in the development of immunotherapeutic products for the treatment of cancer. Prima BioMed is dedicated to leveraging its technology and expertise to bring innovative treatment options to market for patients and to maximise value to shareholders.

Prima's current lead product is IMP321, based on the LAG-3 immune control mechanism which plays a vital role in the regulation of the T cell immune response. IMP321, which is a soluble LAG-3Ig fusion protein, is an APC activator boosting T cell responses for cancer chemo-immunotherapy and in other combinations which has completed early Phase II trials. A number of additional LAG-3 products including antibodies for immune response modulation in autoimmunity and cancer are being developed by large pharmaceutical partners.

Prima BioMed is listed on the Australian Stock Exchange, and on the NASDAQ in the US. For further information please visit [www.primabiomed.com.au](http://www.primabiomed.com.au).

## For further information please contact:

<sup>2</sup> Miller et. al., N. Engl. J. Med. 2007, 357: 2666-76.

<sup>3</sup> Brignone et.al., J. Transl. Med. 2010, 8:71.

For personal use only

**U.S. Investors:**

Matthew Beck, The Trout Group LLC  
+1 (646) 378-2933; mbeck@troutgroup.com

**Australia Investor/Media:**

Mr Matthew Gregorowski, Citadel Communications  
+61 (0) 422 534 755; mgregorowski@citadelpr.com.au