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Prince A M. An antigen detected in the blood during the incubation period of serum hepatitis. *Proc. Nat. Acad. Sci. US* **60**:814-21, 1968.
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This brief report describes the background for the finding of a hepatitis B virus specific antigen and the establishment of its identity with the 'Australia antigen' discovered by Blumberg. [The *SCI*® indicates that this paper has been cited over 685 times since 1968.]

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"I became involved in the hepatitis story while serving as a virologist at the Medical General Laboratory 406 while in the US Army in Tokyo. In an attempt to demonstrate viral antigens characteristic of hepatitis by immunofluorescence, we surveyed 2,500 Korean troops for transaminase abnormalities and then hospitalized those with abnormal transaminase for further study. In 11 of 32 subjects with repeatedly abnormal transaminase, we detected by immunofluorescence nuclear and cytoplasmic antigens in their liver cells. We postulated that the antigens were hepatitis B specific, probably viral, antigens.[1] It thus became natural to postulate that Blumberg's 'Australia antigen,'[2] might represent the hepatitis B specific antigen which we had observed by immunofluorescence. In particular, the discrepancy between the frequency of detection of this antigen in West African and American blacks suggested to me that the genetic explanation then being proposed by Blumberg was probably incorrect.

"For these reasons, in 1966 I began a collaborative study with Blumberg to characterize the Australia antigen in order to determine whether it might have virus-like properties. Using a variety of density gradient centrifugation procedures, we were able to show that the Australia antigen was located on a small virus-like particle. I therefore wrote a paper in 1966, intending to publish it collaboratively to report these findings. Unfortunately, Blumberg was at the time unable to accept the proposed interpretation. We therefore decided to continue these investigations independently.

"Due to the importance of the findings, I insisted on being able to uncode coded reference serum collections. It required approximately one year's work to learn appropriate modifications in the agar composition, as well as the necessity for concentration of the immunoreactants. It then became relatively easy to define the system as outlined in this paper. Unfortunately, the relationship between our findings and the Australia antigen system was unclear since: (1) Blumberg had requested and received return of his reference reagents; (2) I had been informed that Blumberg's results on identical coded serum collections were different from my own; and (3) there were important differences in the agar gel diffusion techniques being used in the two laboratories. For this reason, the section initially included in the manuscript on the relationship between 'SH' and 'Australia antigen' was sufficiently weak to suffer editorial removal. However, with the aid of Lloyd Old, who provided a new set of reference Australia antigen reagents, we were able to investigate this relationship and reported that the two antigens were similar, if not identical, a few months after the appearance of this paper."

1. **Prince A M, Fuji H & Gershon R K.** Immunohistochemical studies on the etiology of anicteric hepatitis in Korea. Amer. J. Hyg. **79:**365-81, l964.
2. **Blumberg B S.** Polymorphisms of the serum proteins and the development of iso-precipitins in transfused patients. *Bull. NY Acad. Med.* **40:**377-86, 1964.