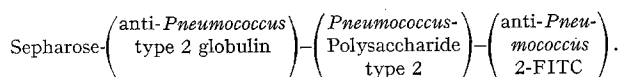


cific antibody were densely packed with *Pneumococcus* organisms at their surfaces (Figures 1 and 2). In Figure 2 a capsular swelling reaction of the bacteria is clearly recognizable. No bacteria were attached to the beads of anti-Ferritin-Sepharose.

The experiment proved that antibody coupling to the insoluble Sepharose beads was successful, and since we worked with particulate antigens, it was also possible to get a quantitative impression of the degree of antibody fixation. In a second experiment we used *Pneumococcus* polysaccharide as an antigen instead of bacteria, according to the following system:



All the beads were now homogeneously and brilliantly stained whereas the negative control beads (anti-Ferritin-Sepharose + *Pneumococcus*-polysaccharide + anti-*Pneumococcus*-FITC) showed no specific fluorescence. They were pale greenish when using a blue filter BG 23, or red when the correction filter was omitted (Figures 3 and 4).

Apart from this very practical control of our coupling procedure we use this method for the following purposes: 1. The evaluation of fluorescent conjugates against soluble antigens (i.e. proteins, polysaccharides, etc.) to be used in immunohistology is difficult: The antigen can be incorporated into a thin layer of gelatine on a slide and then stained, but according to our experience this method is poor, because the homogeneous antigen layer allows no optical contrast.

On the other hand, the evaluation of the antigen directly with histological sections containing antigen is laborious. The direct (protein) or indirect (by means of specific antibody) fixation of the soluble antigen to Sepharose beads gives us an antigen carrier, which is

easy to handle and can be washed. Furthermore it reveals an optimal optical contrast without any background, because of its particulate structure.

2. For the evaluation of new filter systems in the fluorescence microscopy, i.e. interference filters for green FITC and red Rhodamine compounds, which become more and more important for the simultaneous double staining of 2 different antigens, it is helpful to have a simple training system. Ploem<sup>10</sup> recommended the use of microdroplets of a watery solution of the fluorochrome in an artificial resin mixture. We coupled bovine IgG-FITC and bovine serum albumin labelled with Tetramethyl-Rhodamine-Isothiocyanate (BBL) to Sepharose 4 B and submitted mixtures of the brilliantly fluorescing beads (green = FITC, red = BSA-TRITC) to fluorescence microscopy. Such preparations can be stored at 4°C for many months.

After the completion of this work we learned that J. LASCH, M. IWIG and H. HANSON<sup>11</sup> made a similar experiment with leucine aminopeptidase labelled with FITC and coupled to Sephadex G100 and Sepharose 6 B respectively.

*Zusammenfassung.* Durch Kombination von Immuno-adsorption und Immunofluoreszenz wird die Adsorption von Proteinen an eine Trägersubstanz sichtbar gemacht.

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<sup>10</sup> J. S. PLOEM, *Standardization in Immunofluorescence* (Ed. E. J. HOLBOROW, Blackwell Scientific Publications, Oxford 1970).

<sup>11</sup> J. LASCH, M. IWIG and H. HANSON, *Eur. J. Biochem.* 27, 431 (1972).

## PRAEMIA

### Prize Biochemical Analysis

The prize of DM 10,000.- is donated from Boehringer, Mannheim, and is awarded at the conference 'Biochemische Analytik' in Munich for outstanding work in the field of biochemical analysis. The donation will take place during the 1974 conference between 23 and 26 April. One paper or several papers concerning one theme, either

published or accepted for publication between 1 October 1971 and 30 September 1973 may be sent in triplicate before 15 November 1973 to Prof. Dr. Ivar Trautschold, Secretary of the Prize Biochemical Analysis, Medizinische Hochschule Hannover, Karl-Wiechert-Allee 9, D-3 Hannover-Kleefeld (Germany).

## CONGRESSUS

### Switzerland

#### 4th International Conference on Magnetic Resonance in Biological Systems

at Kandersteg, 16-21 September 1974.

The purpose of the conference is to bring together scientists of many disciplines who are concerned with the application of magnetic resonance in biochemistry, molecular biology, biophysics, pharmacology, and medicine. The program will include papers presented by invited lecturers, contributed communications, an discussion periods.

For further information write to: Professor Dr. K. Wüthrich, Institut für Molekularbiologie und Biophysik, ETH-Hönggerberg, CH-8049 Zürich (Switzerland).

### Switzerland

#### 9th EUCHEM Conference on Stereochemistry

at the Bürgenstock, near Luzern, 5-12 May 1974.

The number of participants will be limited. Inquiries and applications (no special forms are required) should be addressed before January 15, 1974 to the Chairman: Prof. J. M. Lehn, Institut de Chimie, Université de Strasbourg, 1, rue Blaise Pascal, F-6700 Strasbourg (France).