

## Methods for Detection

One has to distinguish detection of tissue bound immune complexes from soluble ones, found in bodily fluids, most often in serum or plasma. The tissue bound immune complexes are demonstrated by immunofluorescent technique with specific fluorescein-labelled anti-IgG or anti-IgA. Demonstration of tissue deposited complexes, that are there because they would have locally formed or deposited from the circulation, is not yet a proof for their pathogenic role. A compatible clinical context however is very suggestive. Absolute proof would come from detection of the corresponding antigen, also by immunofluorescence or by in situ hybridization.

The soluble complexes (circulating immune complexes, CIC) are today most often detected by ELISA technology, where the leading firms for purchase are to be found under [www.quidel.com](http://www.quidel.com) or [www.progenbiologics.com](http://www.progenbiologics.com). Substantial progress in looking at complement components bound to immune complexes and using them as capture is made. Thus, complement C4 bound to CIC or C5 bound to CIC can directly serve to identify those CIC that have pushed complement activation beyond C3. Classically, monoclonal antibodies against C1q are fixed to polystyrol plates and they thus allow to capture C1q bound to complexes which then are revealed by enzyme labeled anti-IgG antibodies. Good methods are based on cellular Fc-receptor interaction of the CIC to be detected (example: Raji-cell assay); as yet, cellular assays are difficult to standardise and expensive - they lend themselves for diagnostic purpose only in special cases.

