Lupus nephritis is a severe cause of acute kidney injury and an important cause of end-stage renal failure in some regions such as Asia. It is characterised by aberrant innate and adaptive immune responses, autoantibody production and their deposition in the kidney parenchyma, triggering complement activation, increased proliferation of resident renal cells and upregulation of pro-inflammatory molecules leading to inflammatory cell infiltration, all of which culminate in the destruction of normal nephrons and their replacement by fibrous tissue. Anti-dsDNA antibodies are specific to SLE and their level often correlates with disease activity. Apart from mediating pathogenic process through the formation of immune complexes, there is evidence that pathogenic anti-dsDNA antibodies can bind to resident renal cells and induce downstream inflammatory and fibrotic processes. Though clinically effective, current treatment for lupus nephritis entails the use of non-specific immunosuppressive agents and the anti-inflammatory action of high-dose corticosteroids. The clinical and histological impact of novel biologics targeting pro-inflammatory molecules remain to be fully defined. Insight into the underlying mechanisms that induce inflammatory and fibrotic processes in the kidney in lupus nephritis could offer opportunities for novel therapeutic options to improve clinical outcome. This lecture will discuss recent advances in the understanding of pathogenic mechanisms leading to inflammation and fibrosis in the kidney in lupus nephritis, with particular focus on the contribution of resident renal cells.

**Methods** An online survey was made for the LUPUS EUROPE then 24 member groups from 22 countries.

**Results** 14 groups (58%) responded from Belgium (2), Cyprus, Denmark, Finland, Greece, Italy, Iceland, Netherlands, Norway, Spain, UK, Sweden and Switzerland.

Key results included:
- 13/14 groups have an elected board of volunteers, 11/14 are run by volunteers
- 9 of the 14 groups are affiliated with the national arthritis and/or rheumatism associations
- 12/14 groups cited membership subscriptions as the main source of funding
- 5/14 groups have an established medical advisory board mainly involved with educational activities on lupus
- Lack of lupus awareness amongst doctors and time to diagnosis were cited as major challenges for people with lupus
- 8/12 groups identified need for capacity building in political lobby activities

More than 2/3rds of the groups expect LUPUS EUROPE to support member groups in their advocacy work and provide scene and opportunity to have more people educated and engaged in improving lupus patient interests in research and political work.

**Conclusions** There is a diverse range of capabilities and needs amongst national European lupus groups; some are very well established with significant capabilities, while others need capacity building in priority areas.

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**Parallel Session 5: Lupus nephritis**

**18 RESIDENT KIDNEY CELLS IN THE PATHOGENESIS OF LUPUS NEPHRITIS**

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10.1136/lupus-2017-000215.18

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