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# SHAREHOLDERS AND COMMON OWNERSHIP IN THE MARKET FOR MONOCLONAL ANTIBODIES: A network analysis

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André Soares Motta-Santos<sup>1,2</sup>; Khorshed Alam<sup>2</sup>; Kenya Valéria Micaela de Souza Noronha<sup>1</sup>; Leonardo Costa Ribeiro<sup>1</sup>; Jeff Gow<sup>2</sup>; Mônica Viegas Andrade<sup>1</sup>.

<sup>1</sup>Universidade Federal de Minas Gerais; <sup>2</sup>University of Southern Queensland.

## BACKGROUND

Common ownership—where multiple firms are partially owned by the same investors—is a prominent feature of modern financial markets. While it can promote strategic collaboration and technology sharing, it has also been linked to reduced competition and barriers to entry. To investigate common ownership, where multiple firms share major investors, in the mAb innovation market.

## METHODS

We conducted a cross-sectional network analysis of ownership ties in the mAb market. For the breadth analysis, two network models were developed: (1) an undirected network to map power, influence, and strategic position and (2) a directed network to capture directional influence between shareholders and companies. For the common ownership analysis, a unimodal network linking shareholders was built, with common ownership ratios calculated for both investors and firms.

## RESULTS

It is evident that the power of companies is relatively more prominent in the network compared to their structural placement or influence (Figure 1). Shareholders, on the other hand, tend to occupy more strategic positions within the network and are often connected to highly influential nodes in a directional manner (Figure 2). The common ownership analysis showed that some shareholders are better connected than others, with BlackRock, UBS, and JPMorgan Chase gaining the most prominent common.

Figure 1. Undirected network of shareholders and companies associated with the mAb innovation market.

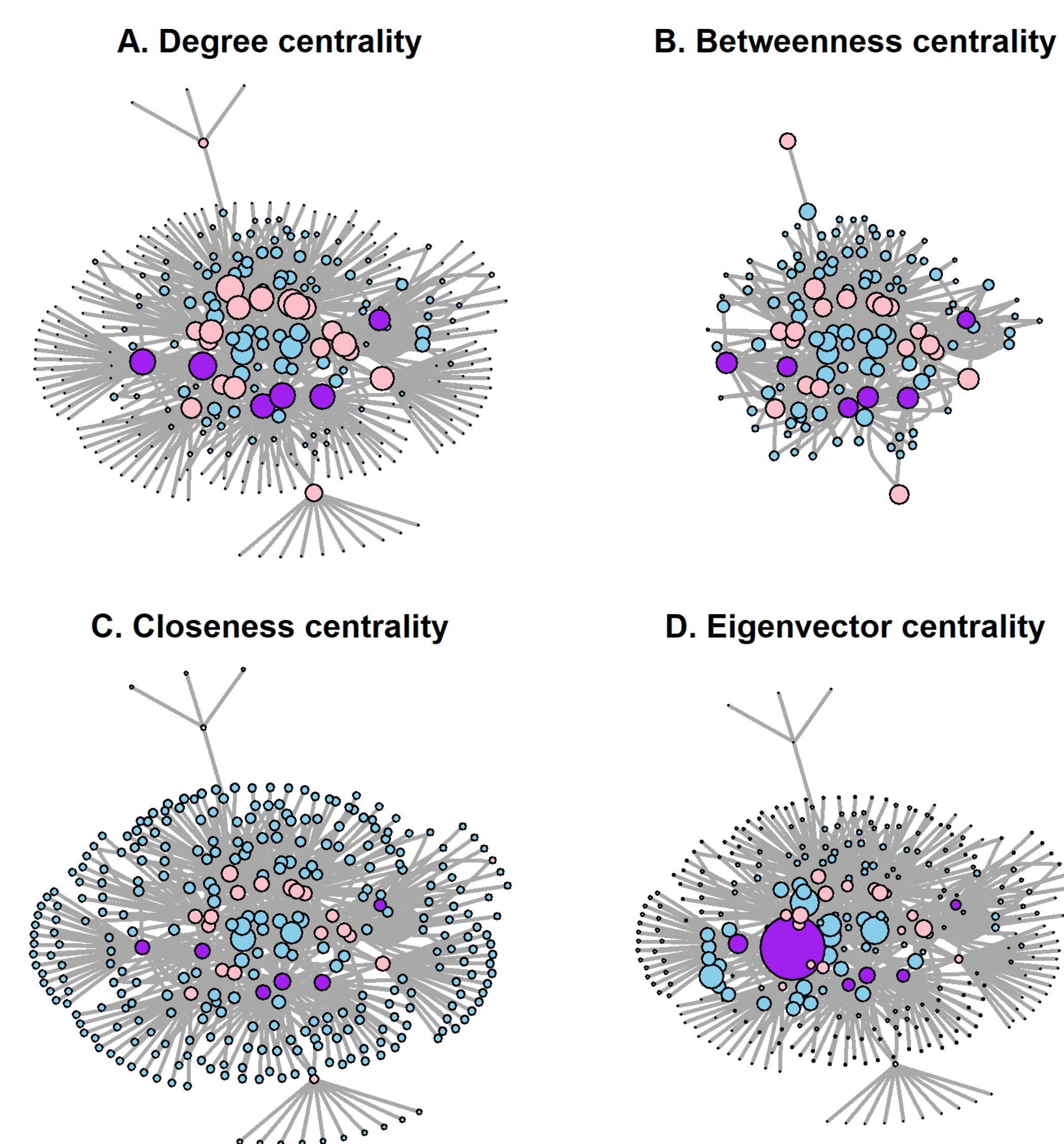
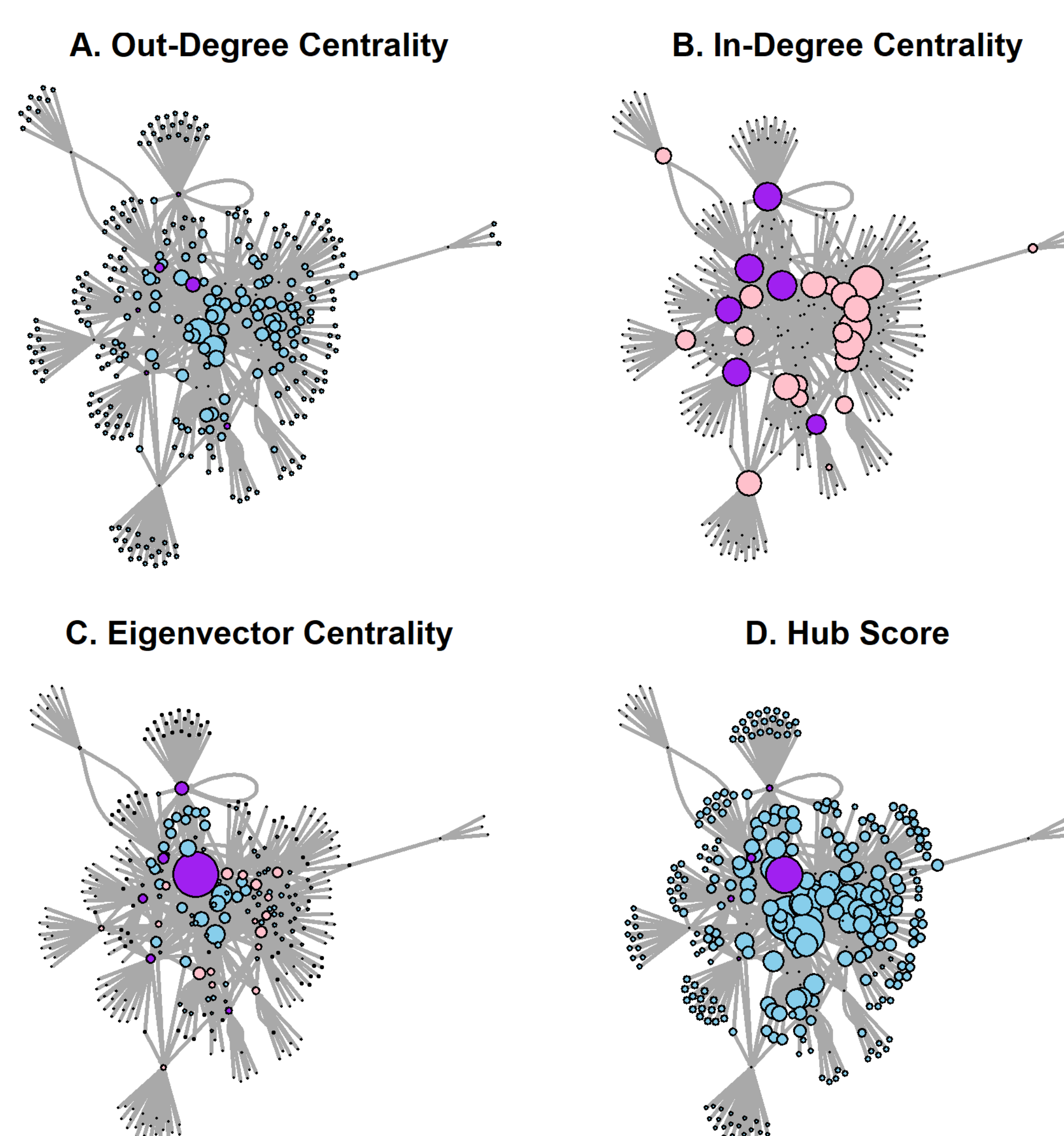
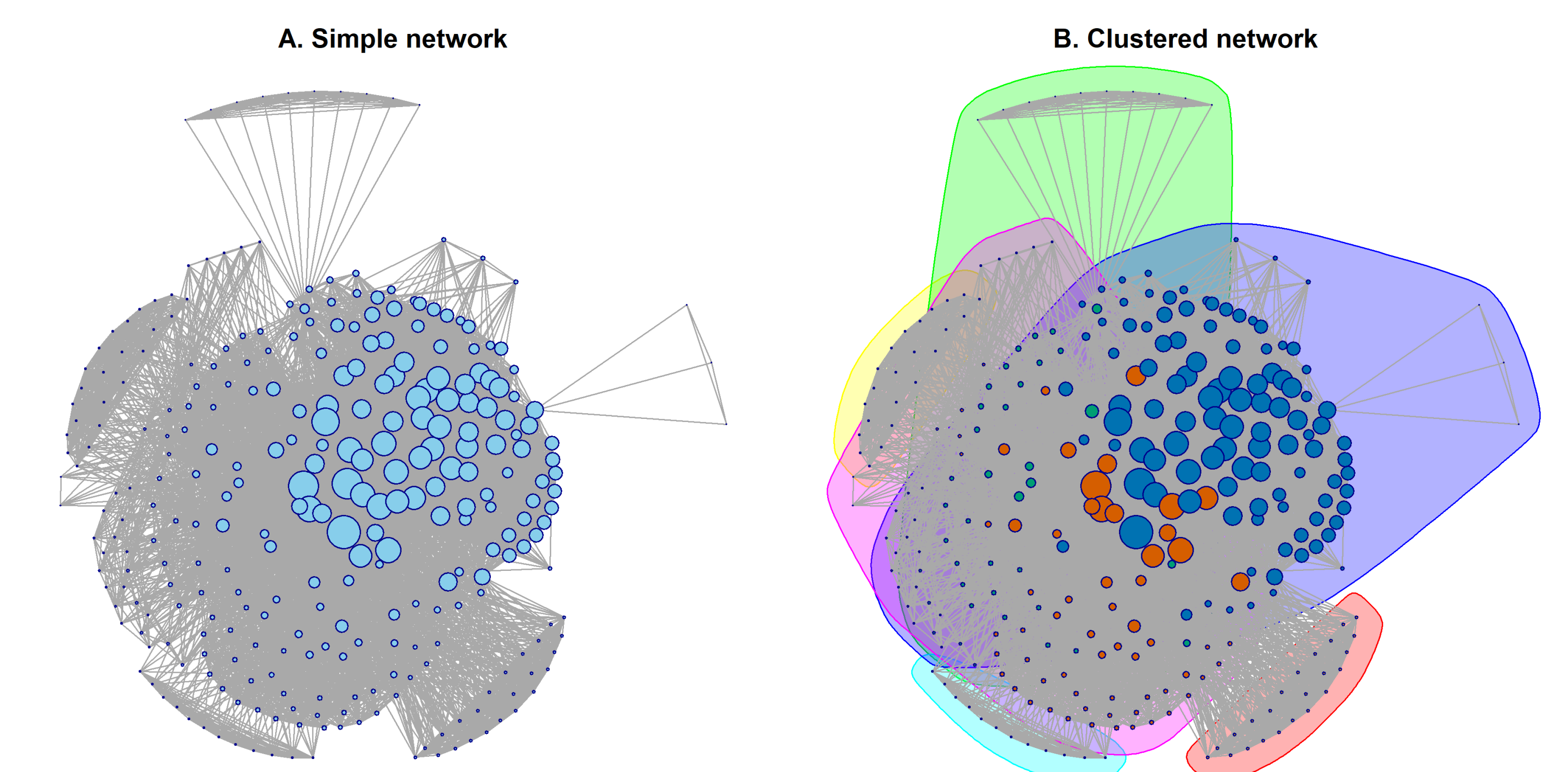


Figure 2. Directed network of shareholders and companies associated with the mAb innovation market.



In terms of companies, Abbott, Eli Lilly, BMS, Biogen, Pfizer, and Amgen were the companies with the most influential shareholders in the network (Figure 3). The observed concentration of power and influence in the hands of a few key players suggests the possible existence of a rich-club phenomenon that directs decisions in the mAb innovation market.

Figure 3. Shareholder network in the mAb innovation market divided by clusters.



## CONCLUSIONS

Common ownership in the mAb market is highly concentrated, with a handful of investors shaping competitive dynamics, governance, and potentially innovation. These findings highlight the need to examine how financial concentration influence drug development, pricing, and access.

## SUPPORT

