Studies potentially eligible for inclusion (n=85)

Potentially relevant articles identified through electronic databases and reference checking (n=229)

Studies retrieved for eligibility (n=178)

Articles excluded on the basis of the **publication type** (reviews, letters, editorials, abstracts) (n=51)

Studies on pulmonary biomarkers included in the review (n=79)

Articles excluded on the basis of the **sampling method**:  
- Assessment of systemic biomarkers (n=53)  
- Ex vivo studies (n=8)

Articles excluded on the basis of the **selected population**:  
- Stable COPD, without assessment of ECOPD-related outcomes (n=32)

Exclusion of studies using **mixed ECOPD populations**:  
- Lower respiratory tract infections (n=2)  
- Pulmonary infiltrates (n=1)  
- Bronchiectasis (n=1)  
- Acute respiratory failure (n=1)  
- Unstable COPD including both ECOPD and severe COPD (n=1)