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A Two-Phase Model of Early Fibrous Cap Formation in Atherosclerosis

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Highlights

- Multiphase model of smooth muscle cell response to PDGF in atherosclerotic plaques
- Boundary conditions capture cell migration from media and PDGF influx from lumen
- Smooth muscle cell proliferation makes limited contribution to cap formation
- Stable cap requires critical balance between cell recruitment, migration and death
- Excessive PDGF production reduces efficiency and efficacy of cap formation

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