Selaginpulvinins (1) are natural products which were for the first time isolated from Selaginella pulvinata, a plant widely used in the traditional Chinese medicine [1].

In their structure, selaginpulvinins contain the fluorene motif, which is found in the naturally occurring compounds rather rarely. Within our longstanding interest in catalytic [2+2+2] cyclotrimerizations, we have demonstrated that the cyclotrimerization can be applied in syntheses of various fluorene containing systems [2, 3]. In this contribution, we would like to report a synthetic approach to the fluorene core of selaginpulvinins based on catalytic [2+2+2] cyclotrimerization of triynes 3 with alkynes 4 as the key step. The respective triyne 3 was prepared from benzaldehyde 2. We studied the course of the cyclotrimerization with various alkynes using catalytic systems based on Rh, Ru or Ir complexes. Of particular interest was selectivity for formation of fluorenols 5. In the last part, conversion of the cyclotrimerization products 5 towards selaginpulvinins will be described.