

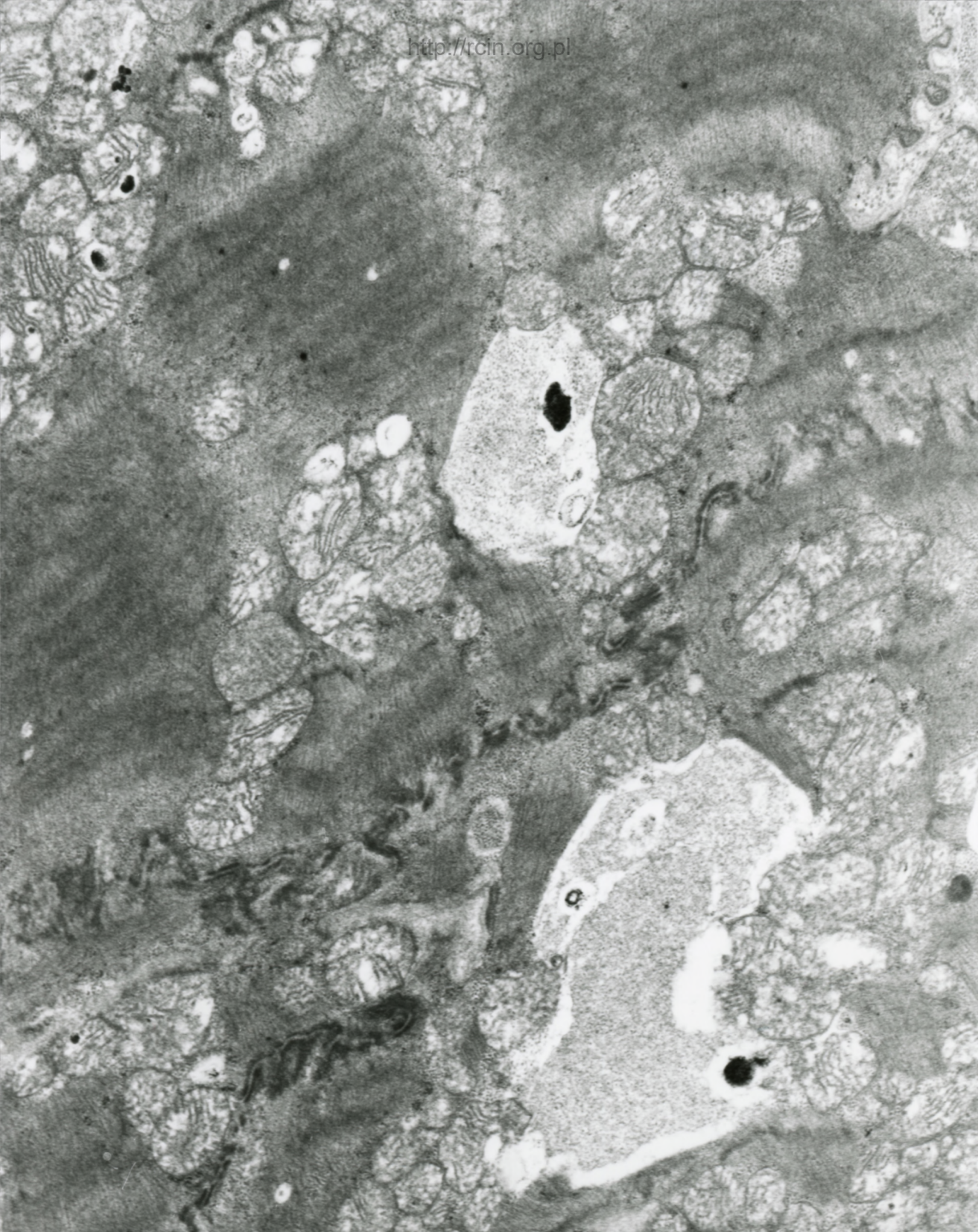
9/08

### Niewydolność mięśnia sercowego

Analiza ultrastrukturalna wykazała nieprawidłowości w budowie morfologicznej kardiomiocytów. W licznych komórkach obserwowano zmiany w strukturze sarkomerów. Miofibryle charakteryzowały się nieregularnym przebiegiem. Cytoplazmę kardiomiocytów wypełniały licznie mitochondria i struktury wakuolarne (Fig. 1). Oprócz mitochondriów w cytoplazmie kardiomiocytów obecne były liczne krople lipidów (Fig. 2,3). W większości komórek obserwowano liczne skupiska ziaren glikogenu otoczonych błoną (Fig. 4,5,6,7). W obrębie skupisk glikogenu często obserwowano wakuole autofagalne (Fig. 8, 9, 10). Jądra kardiomiocytów charakteryzowały się nieregularnym kształtem (Fig. 11).

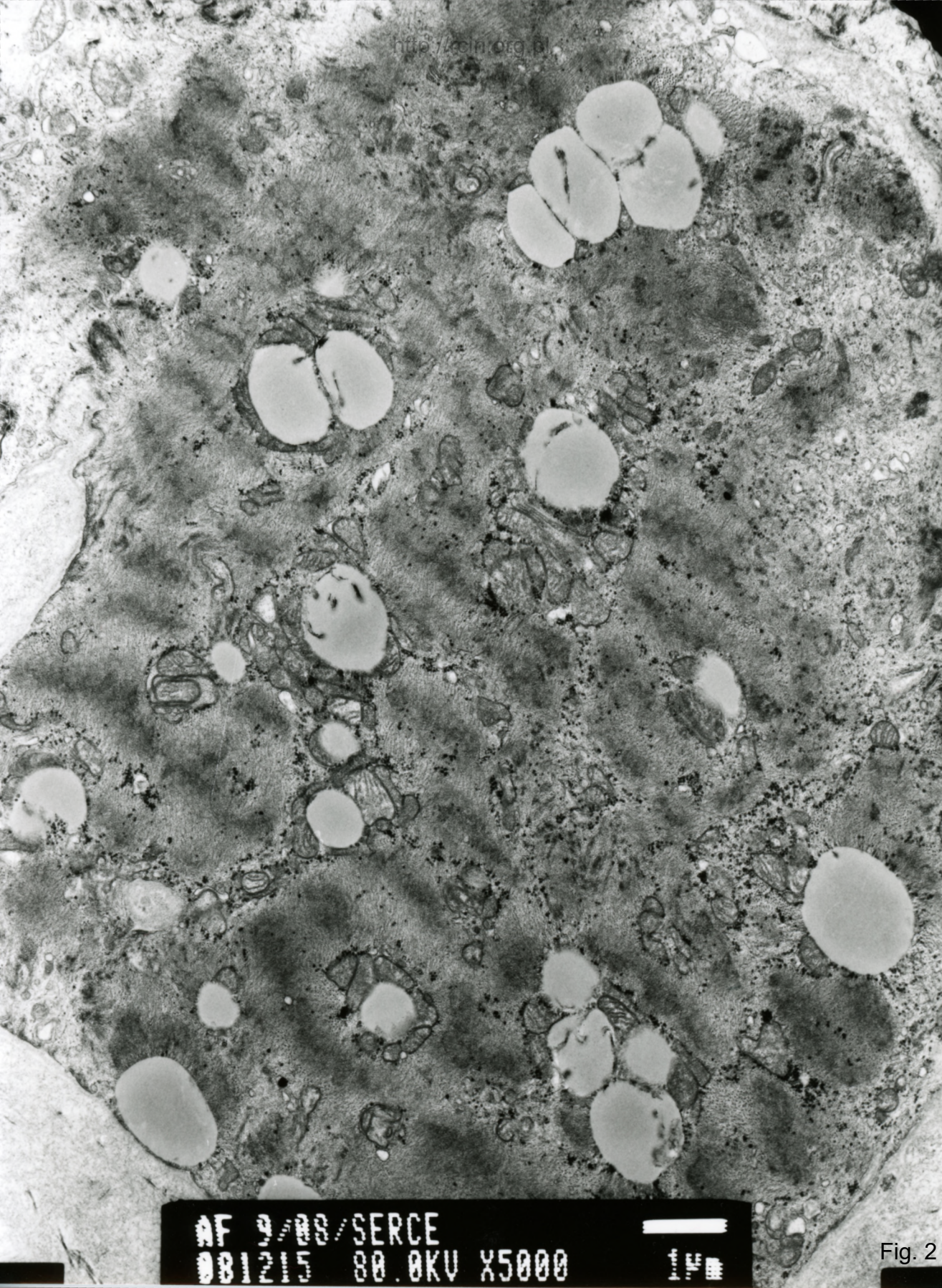
### Heart failure

Ultrastructural analysis revealed abnormalities in the morphological structure of the cardiomyocytes. In many cardiomyocytes changes in the structure of the sarcomeres were observed. The course of myofibrils was irregular. The cytoplasm of cardiomyocytes was filled with numerous mitochondria and vacuolar structures (Fig. 1). Except mitochondria, numerous fat droplets were present in the cytoplasm of cardiomyocytes (Figs. 2,3). In most cells, frequently clusters of membrane-surrounded glycogen granules were seen (Figs. 4,5,6,7). Within glycogen clusters, autophagous vacuoles were often observed (Figs. 8, 9, 10). Cardiomyocytes nuclei were irregularly shaped (Fig. 11).



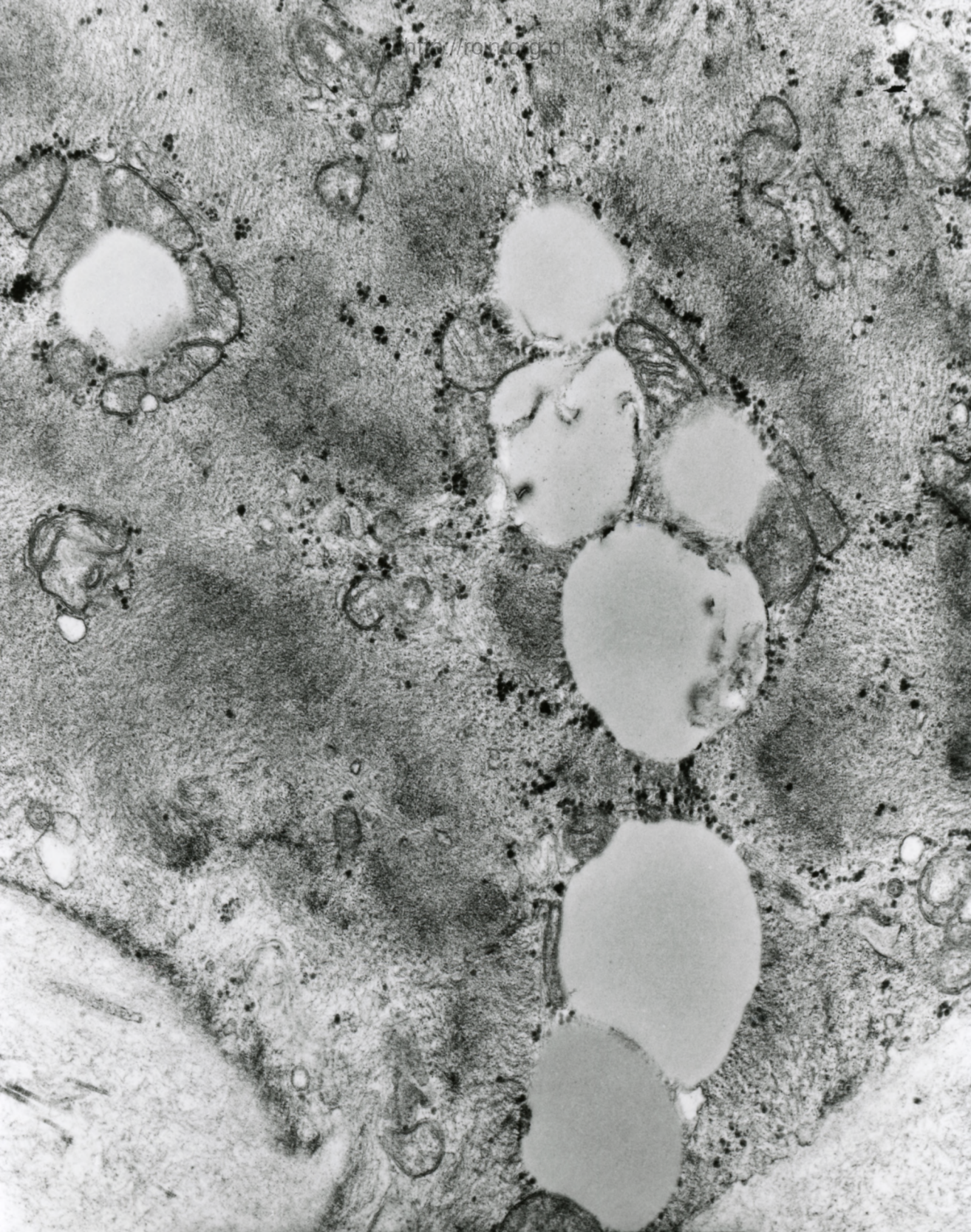
AF 9/88/SERCE/  
000735 80.0KV X7500 1µm

Fig. 1



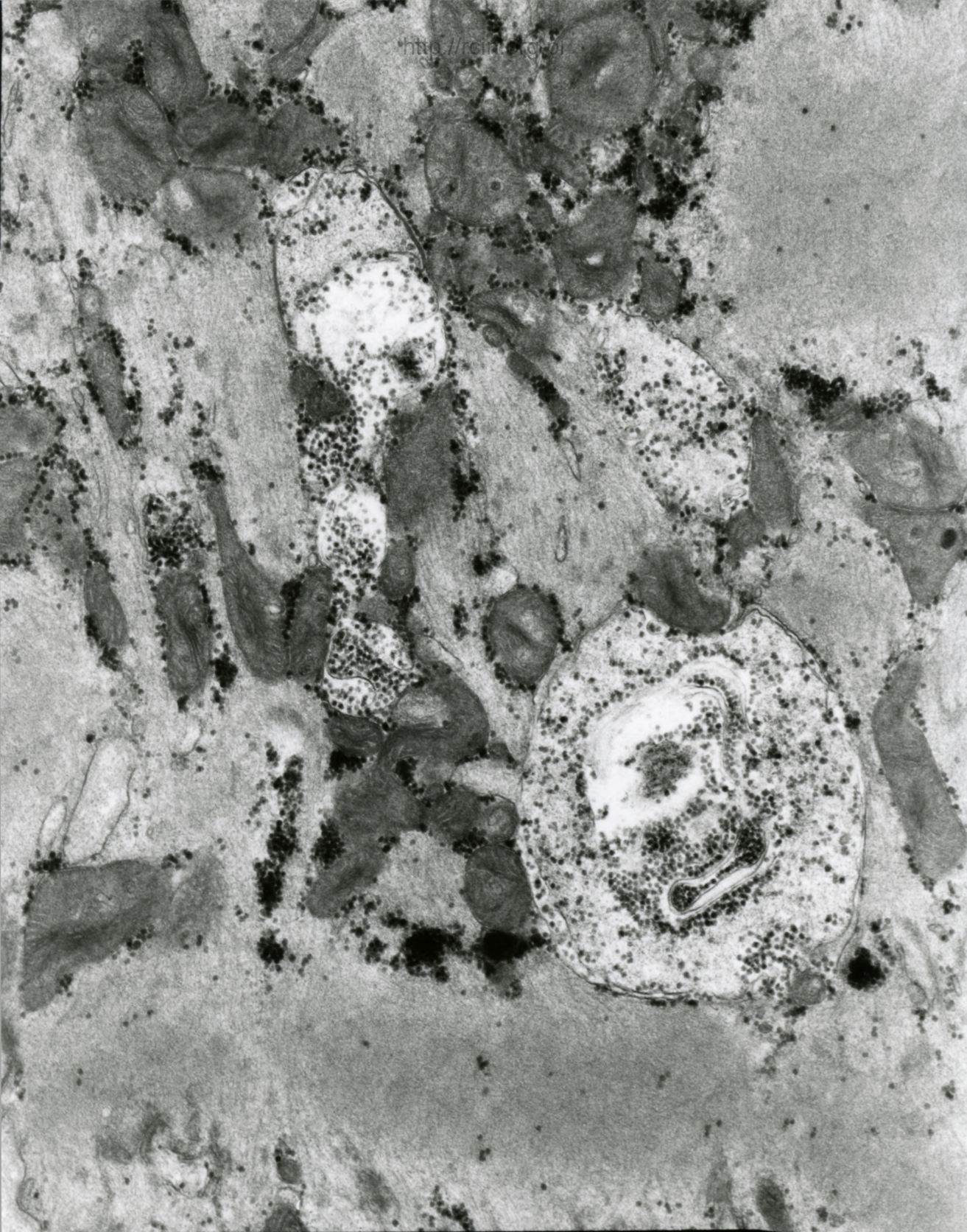
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Fig. 2



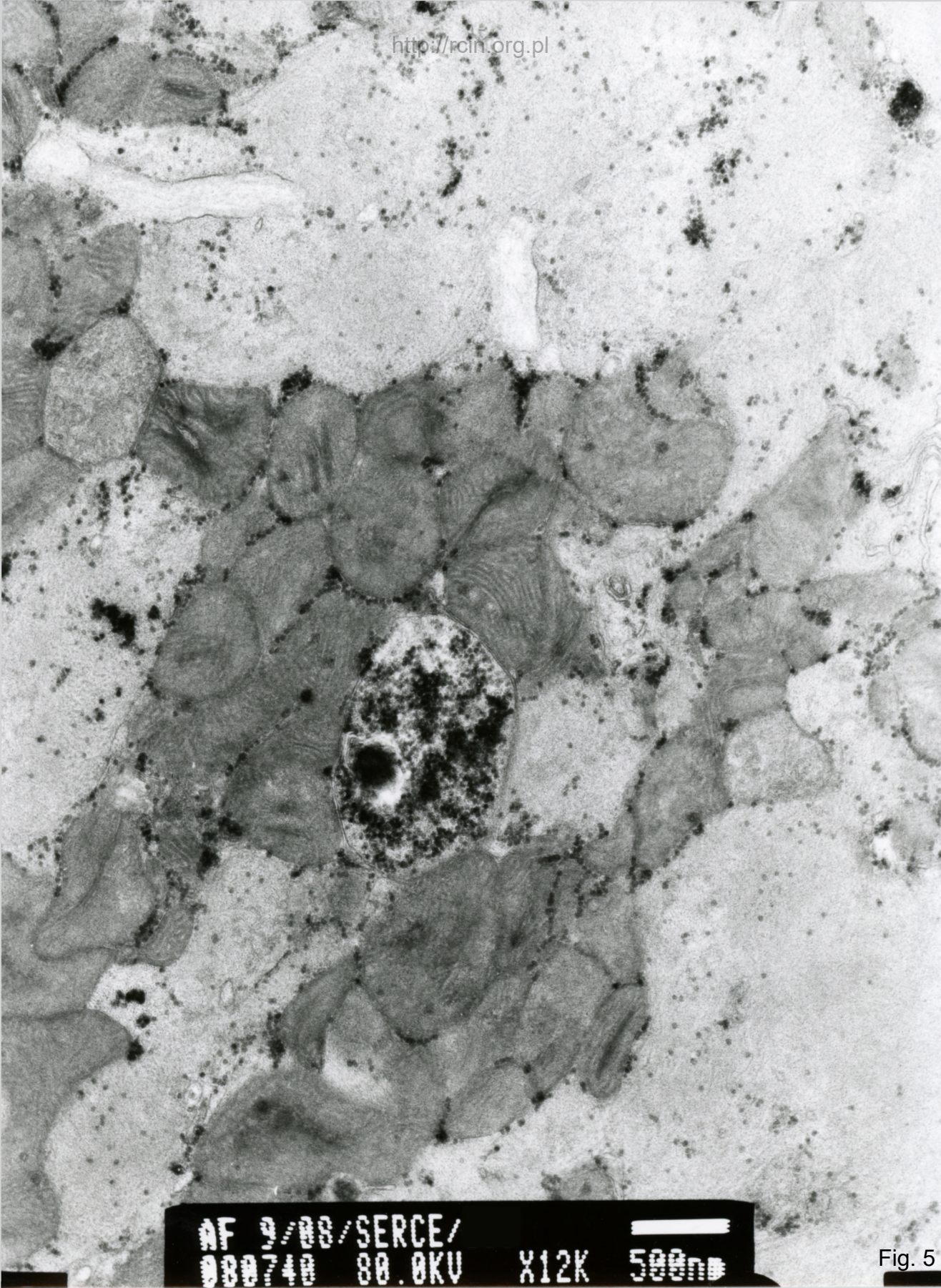
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Fig. 3



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AR1055 RA AKU X12K 500

Fig. 4



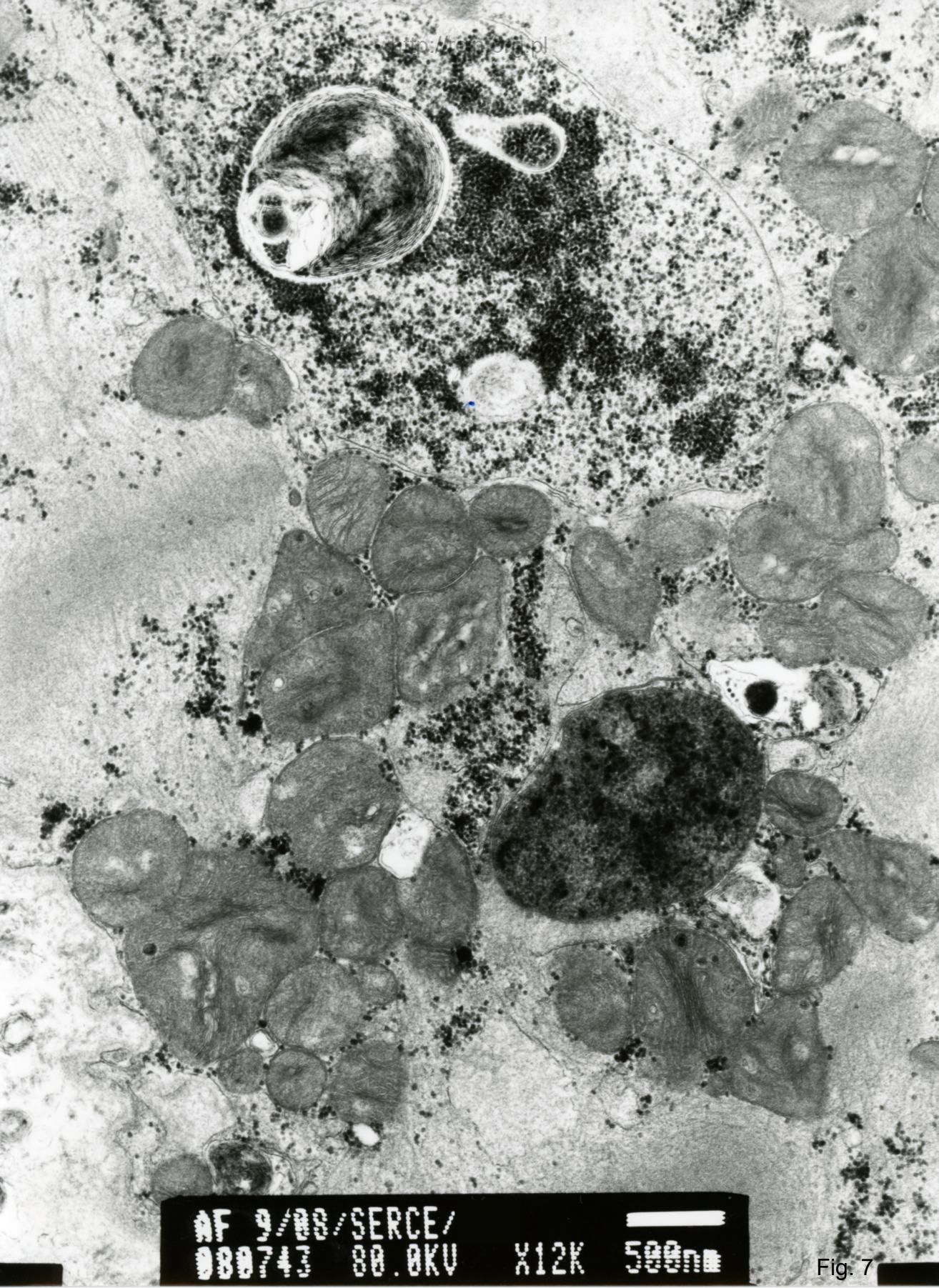
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Fig. 5



AF 9/88/  
081057 RA AKU X15K 500

Fig. 6

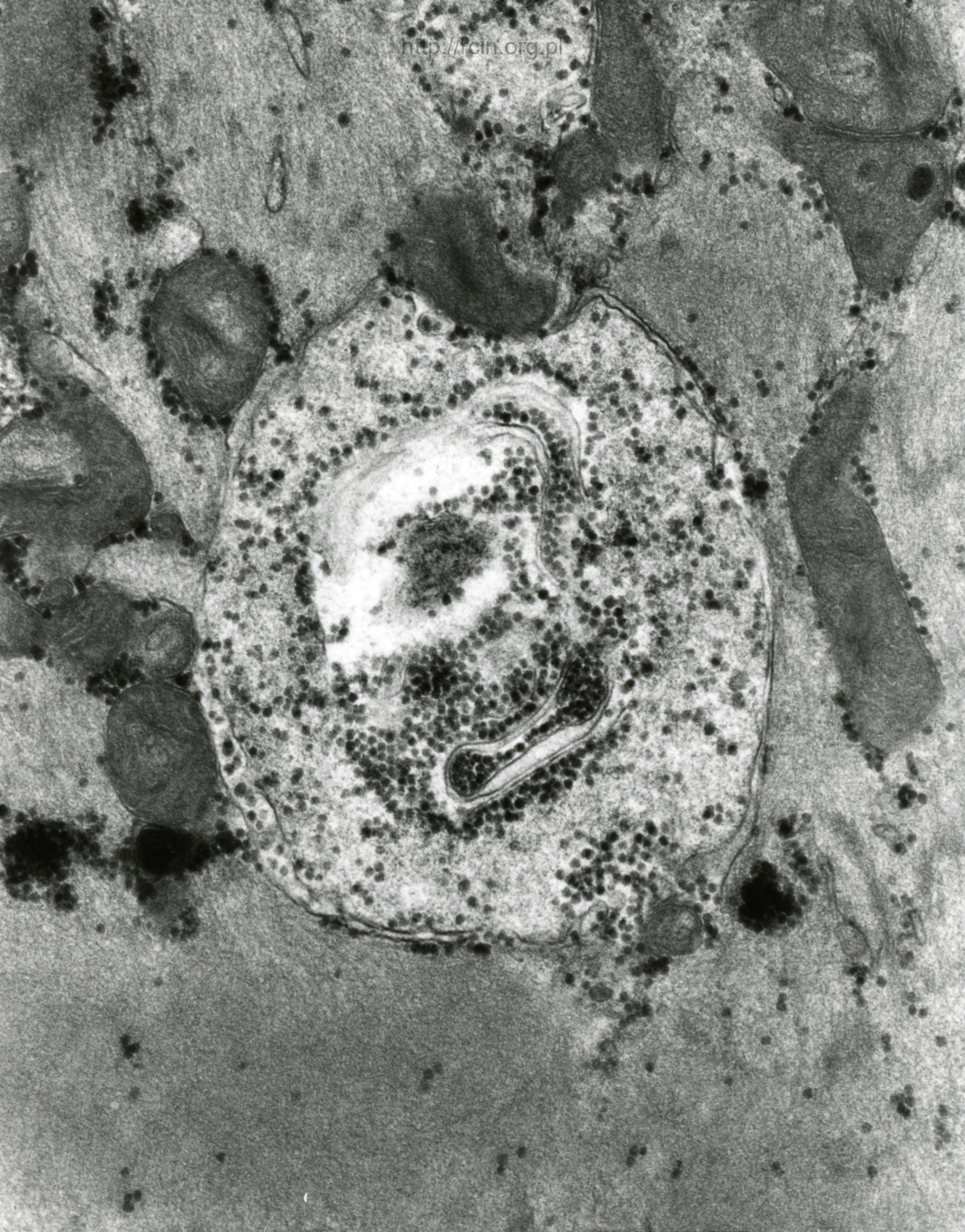


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AF 9/08/SERCE/  
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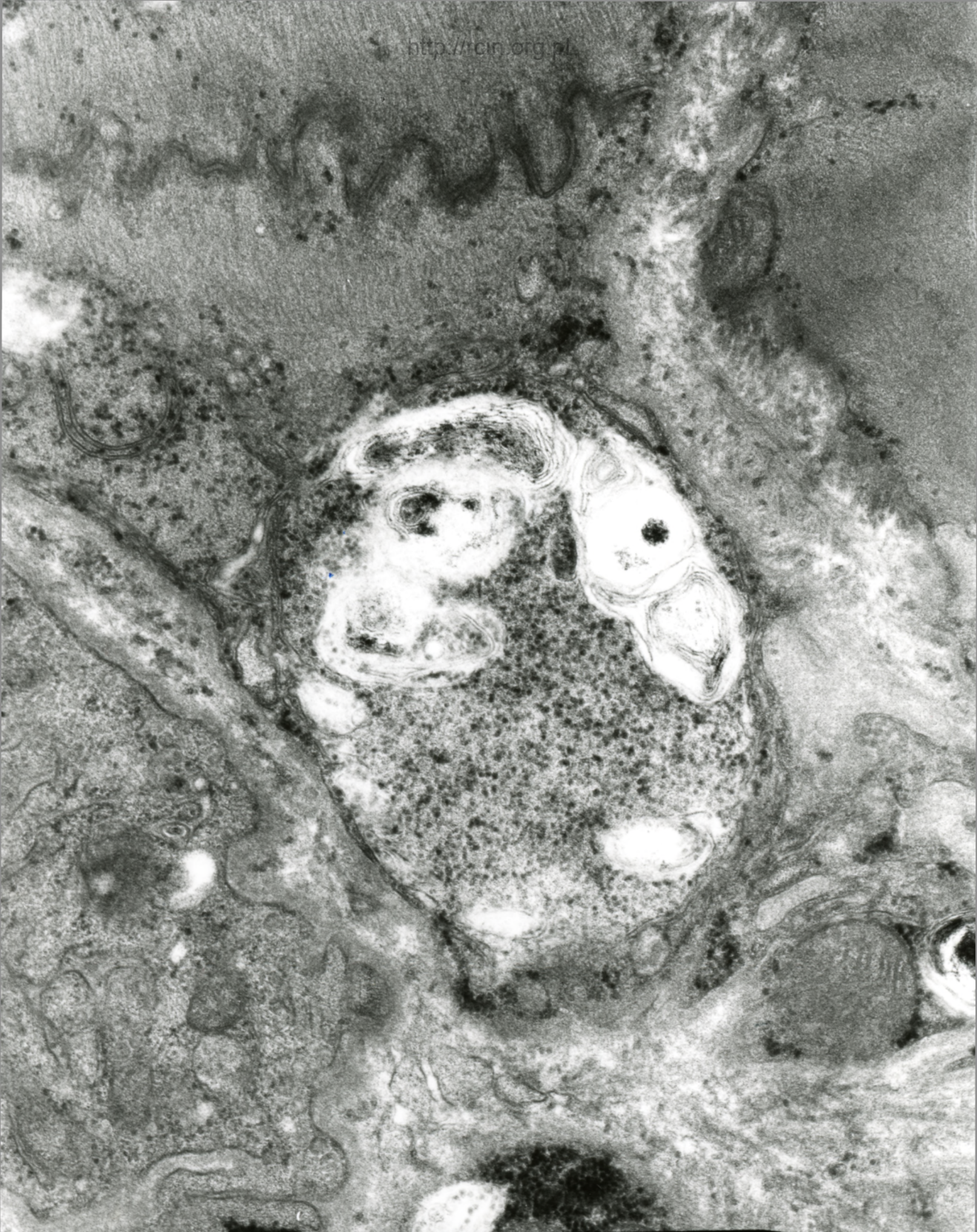
Fig. 7





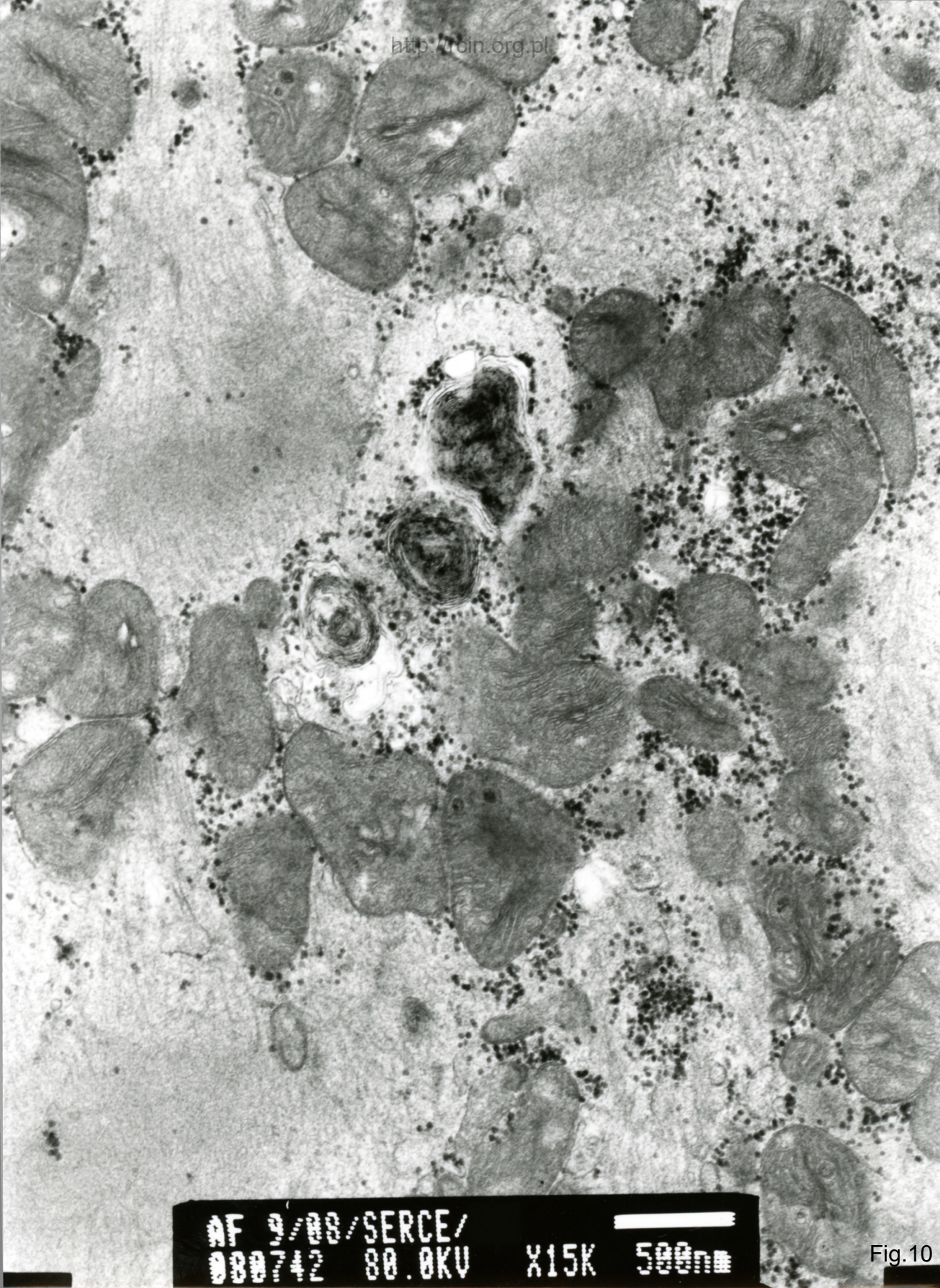
AF 9/88/  
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Fig. 8



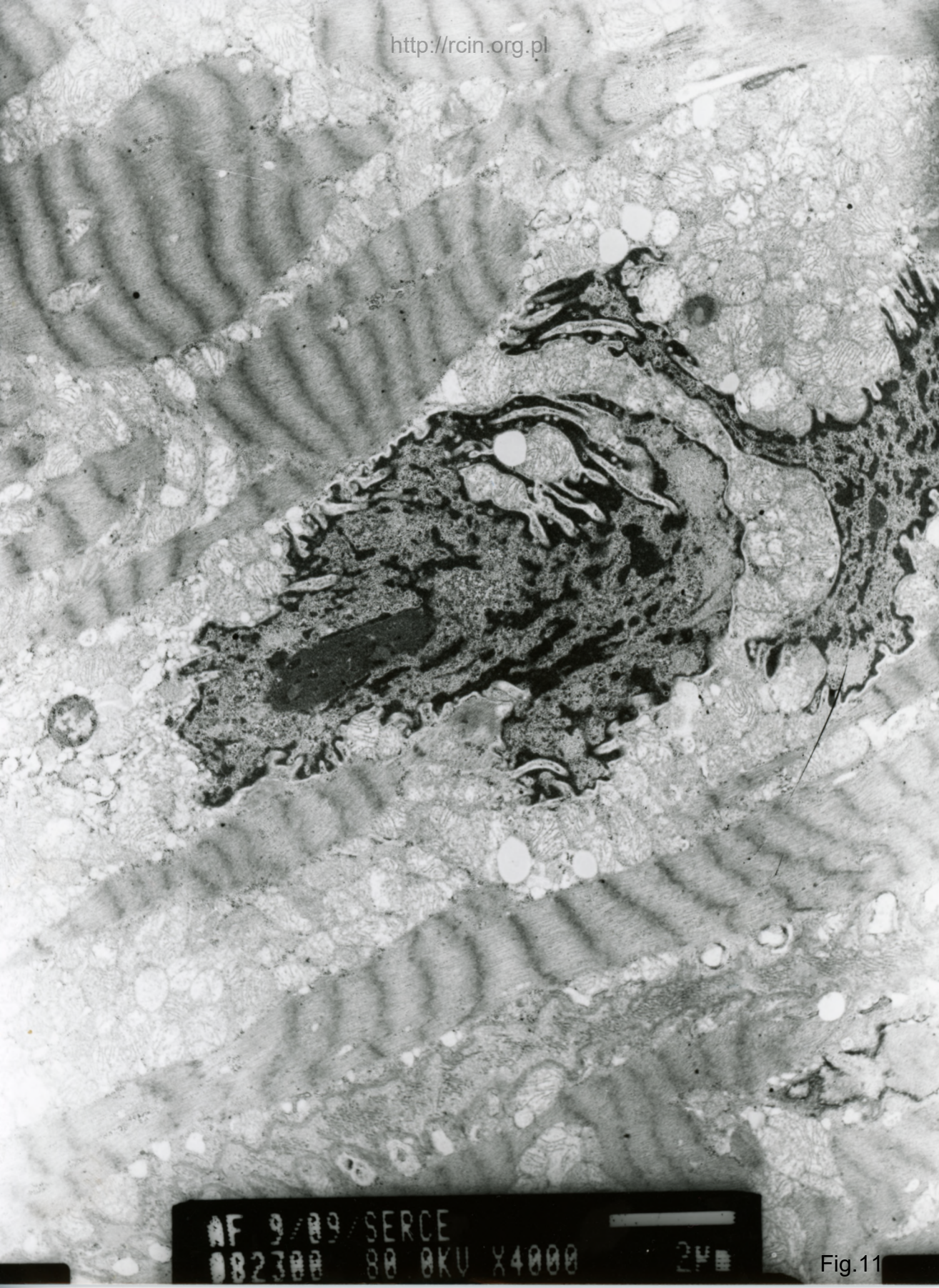
AF 9/88/ 001057 88 OKU X15K 500

Fig. 9



AF 9/88/SERCE/  
000742 80.0KV X15K 500nm

Fig.10



AF 9/89/SERCE  
082300 80 0KV X4000 24

Fig.11