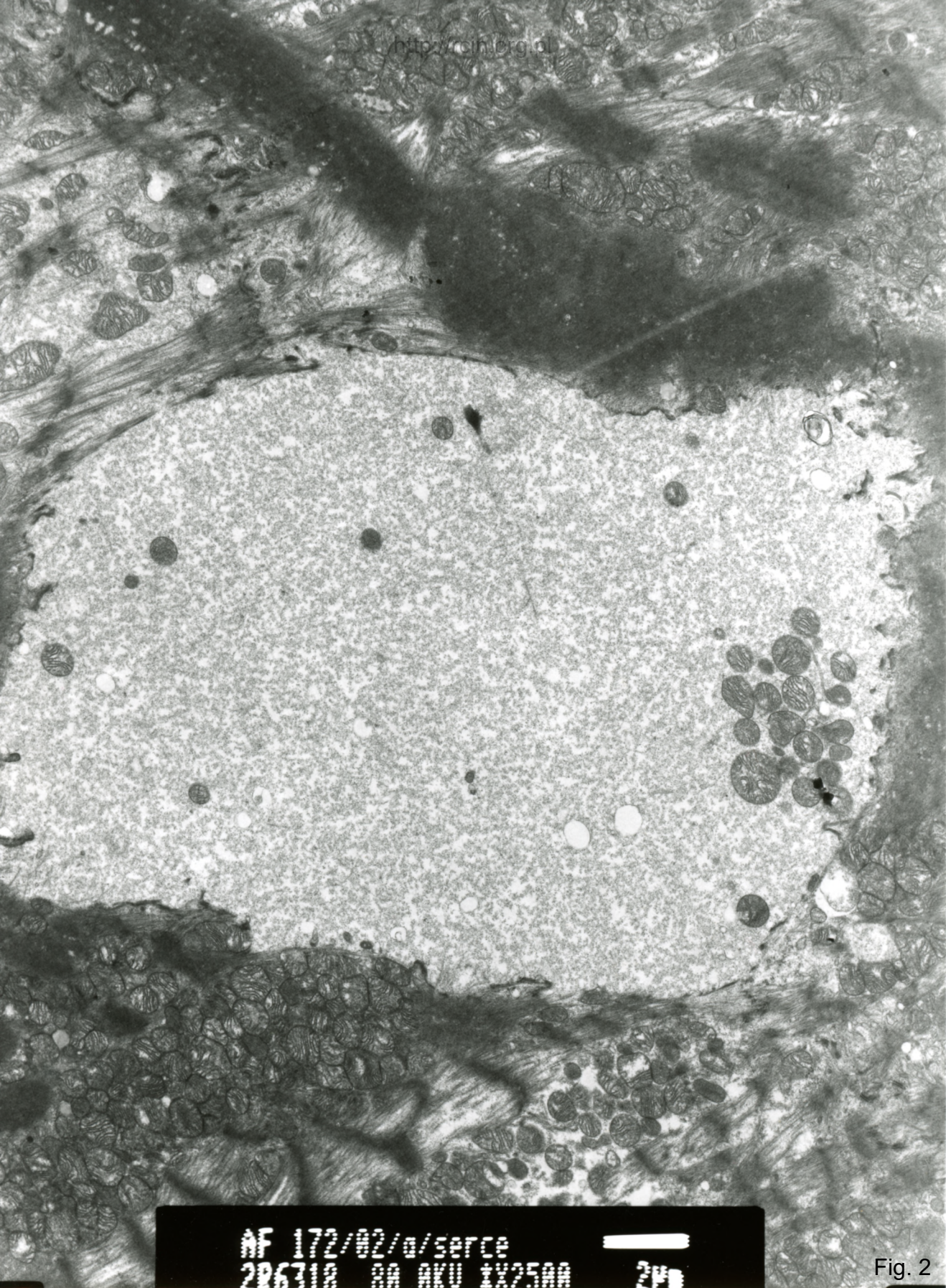


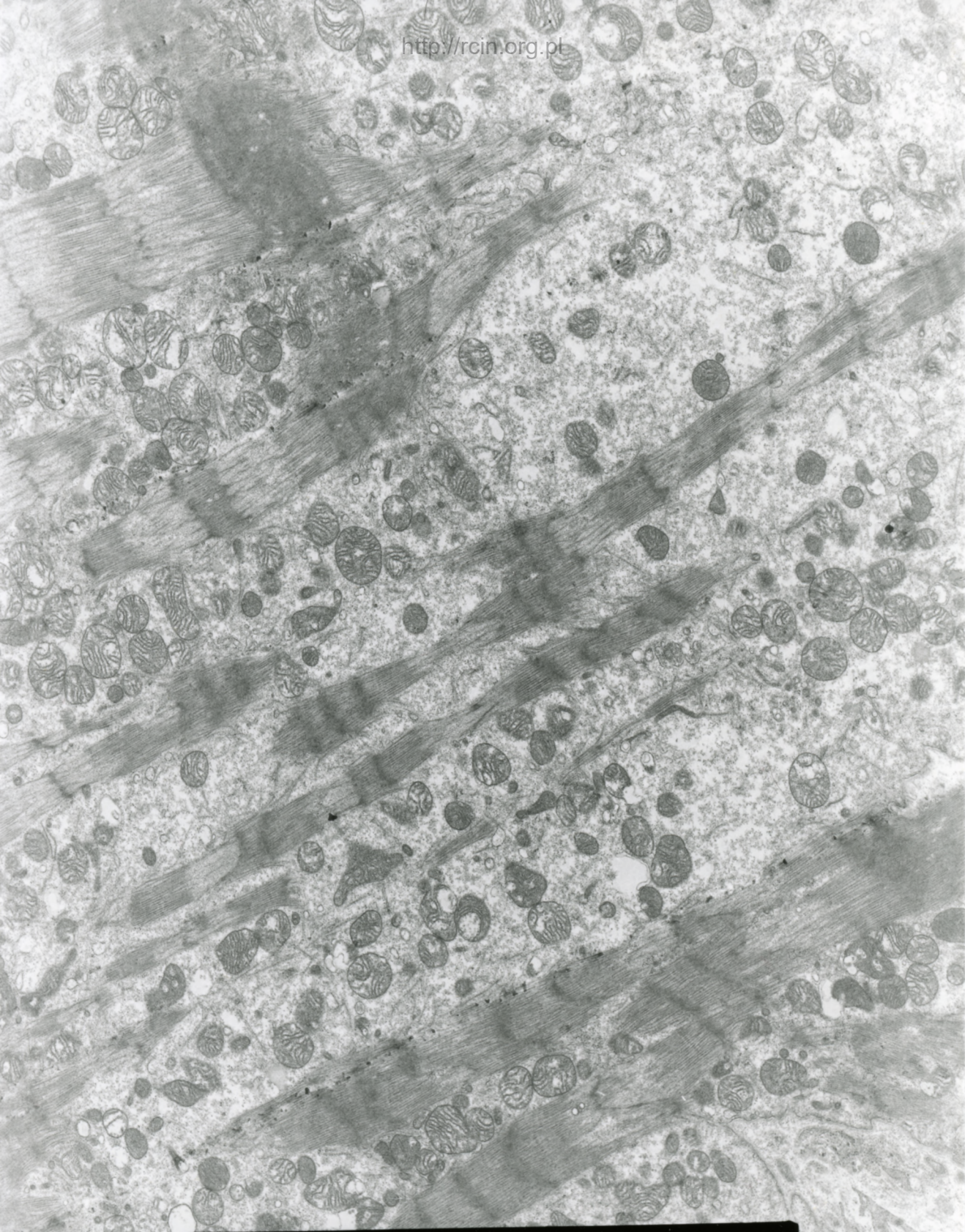
AF 172/02/a/serce
2R6400 80.0KV 1X2500 2P

Fig. 1



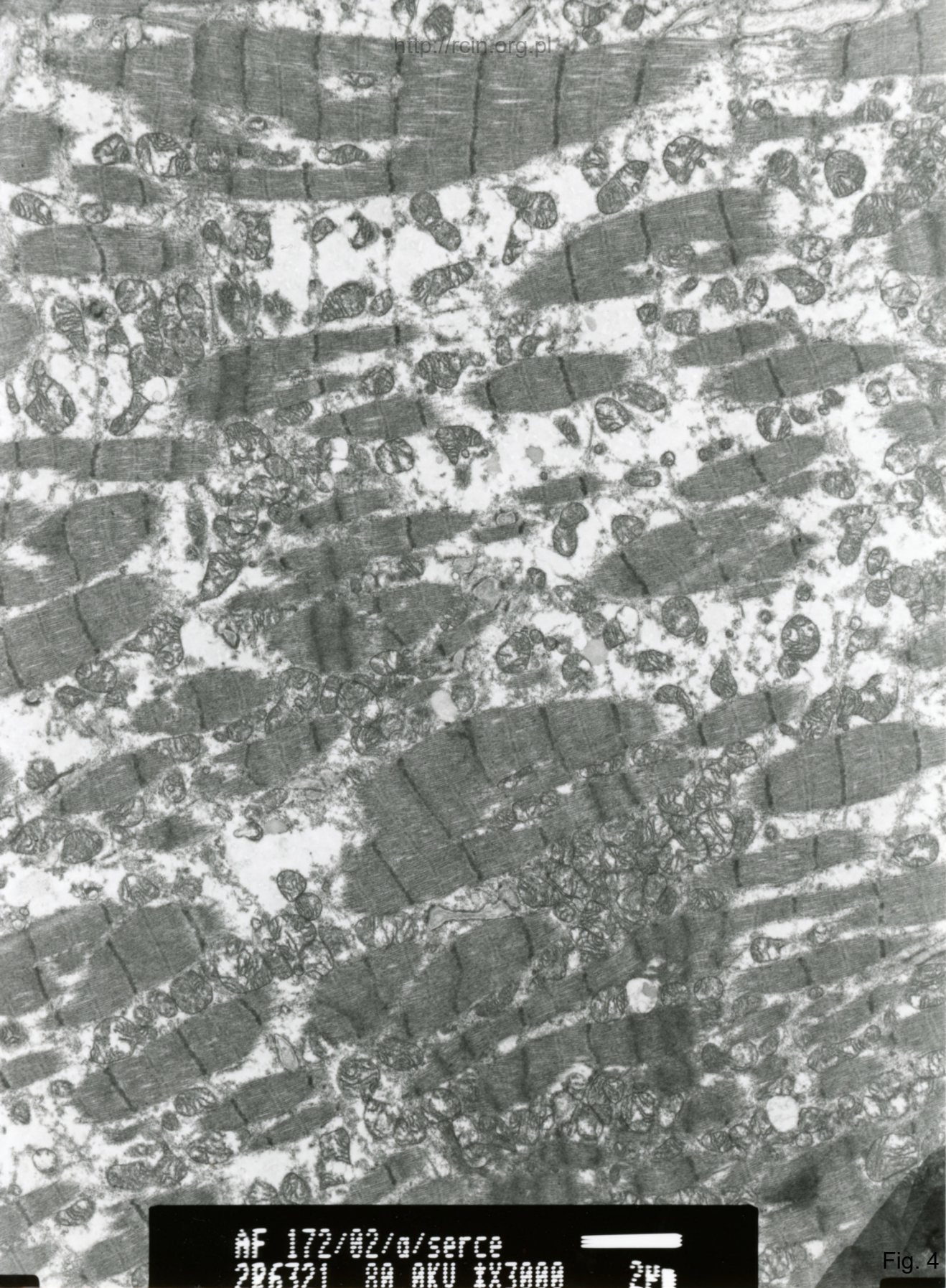
AF 172/02/a/serce
206318 80 AKU IX25AA 2µm

Fig. 2



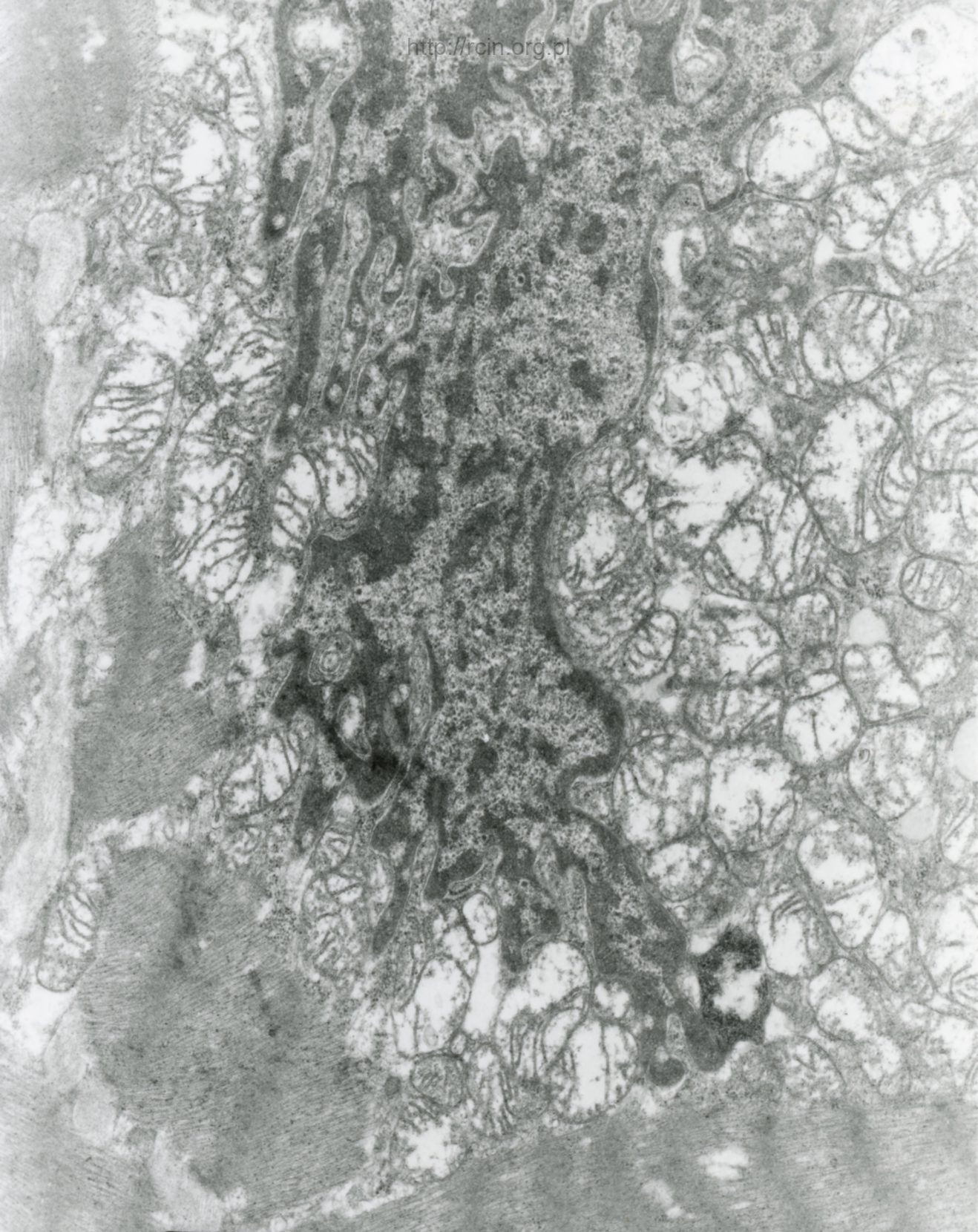
AF 172/00002/o/set
206445 80.0KV IX3000 2P

Fig. 3



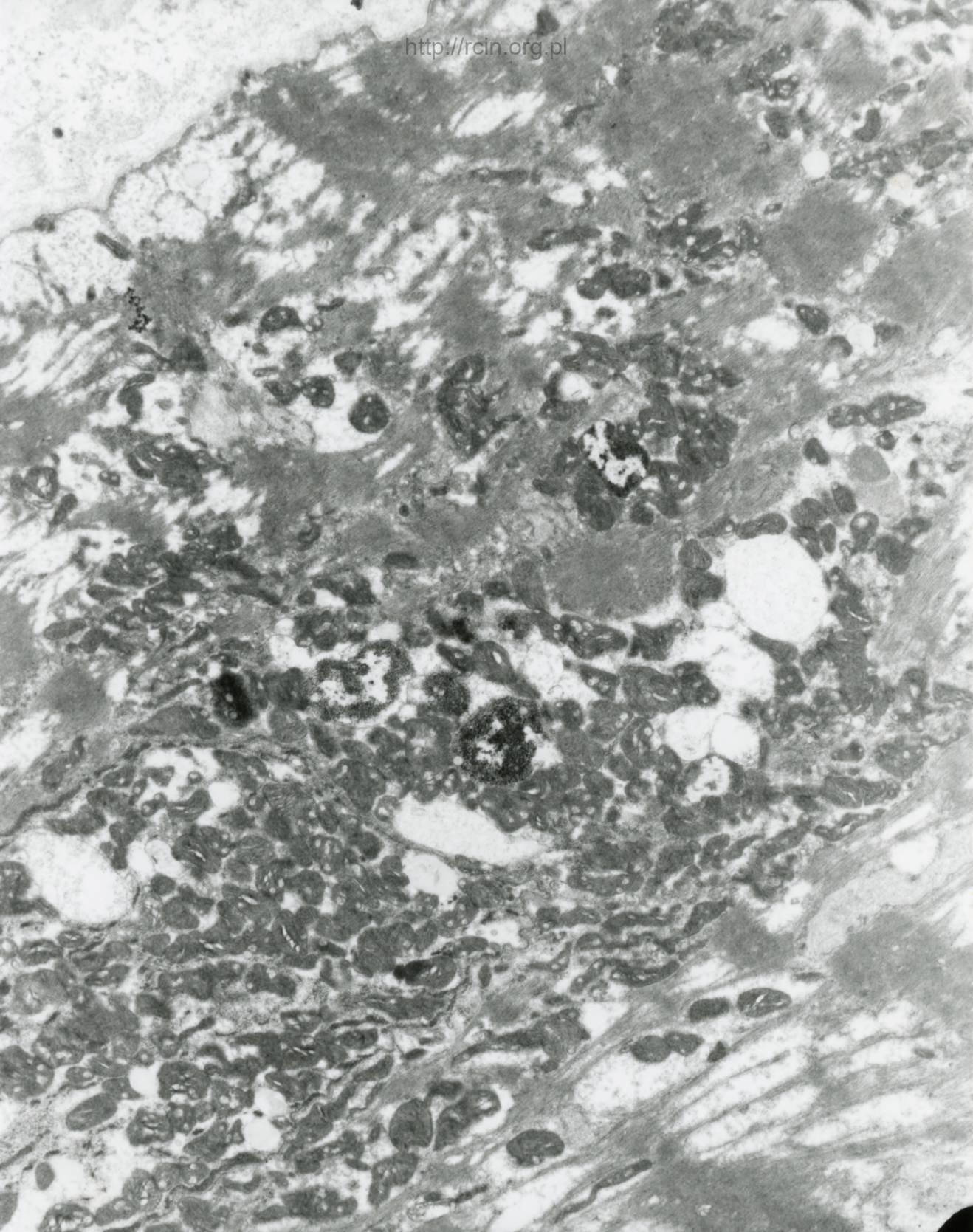
AF 172/02/a/serce
2P6321 SA AKU IX3AAA 24

Fig. 4



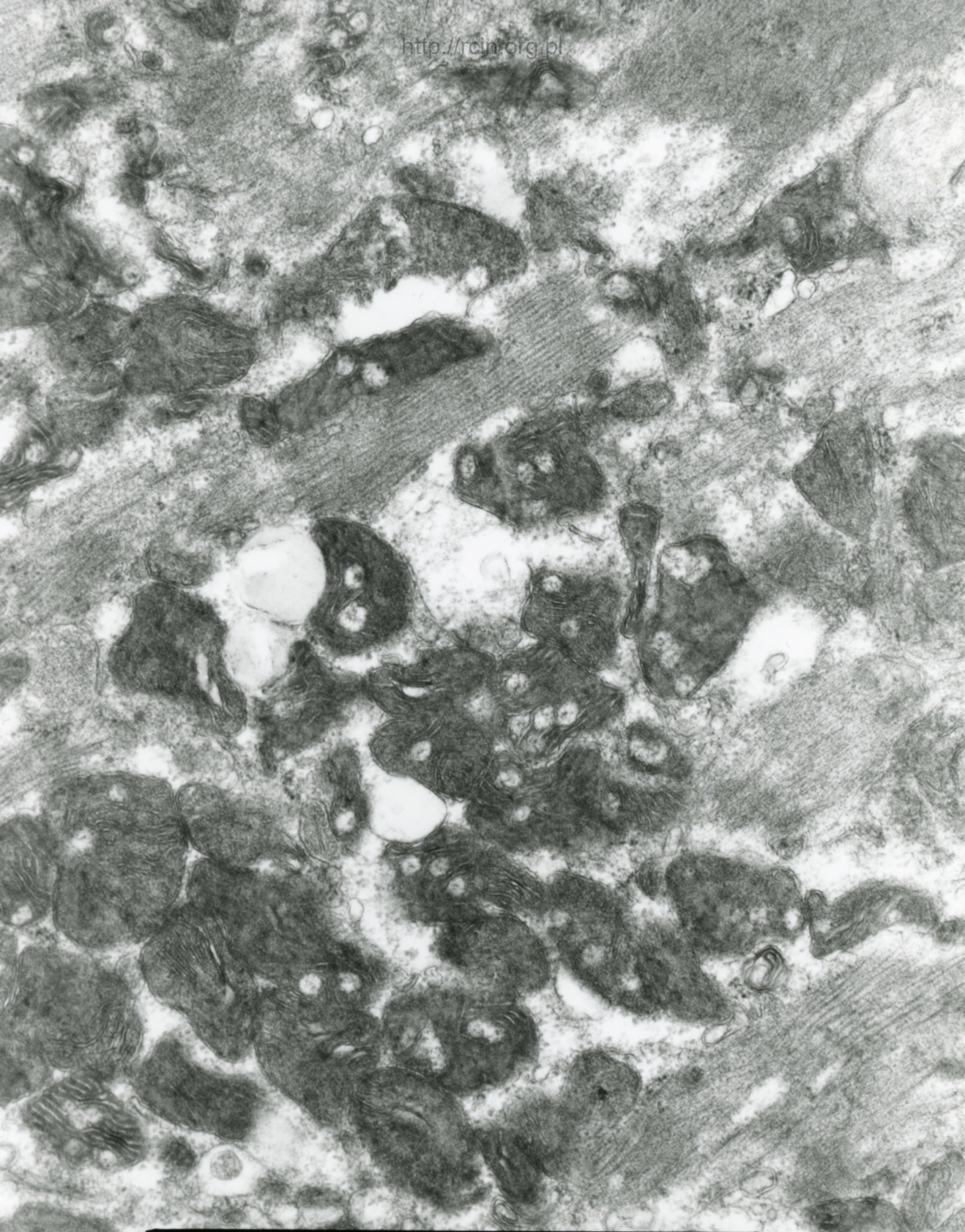
AF 172/00002/a/ser
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Fig. 5



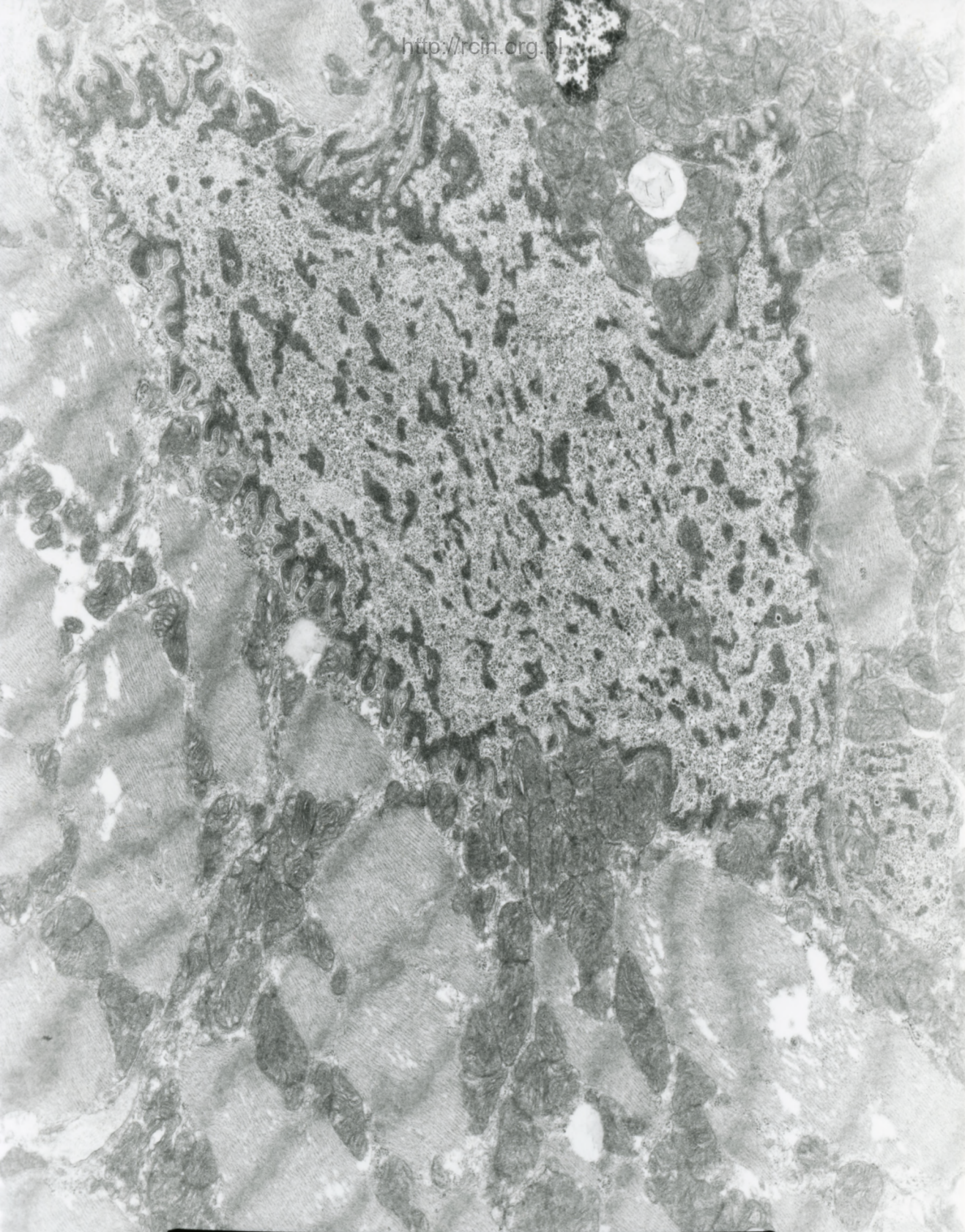
AF 172/02/a/serce
2R6316 80.0KV 1X4000 2P

Fig. 6



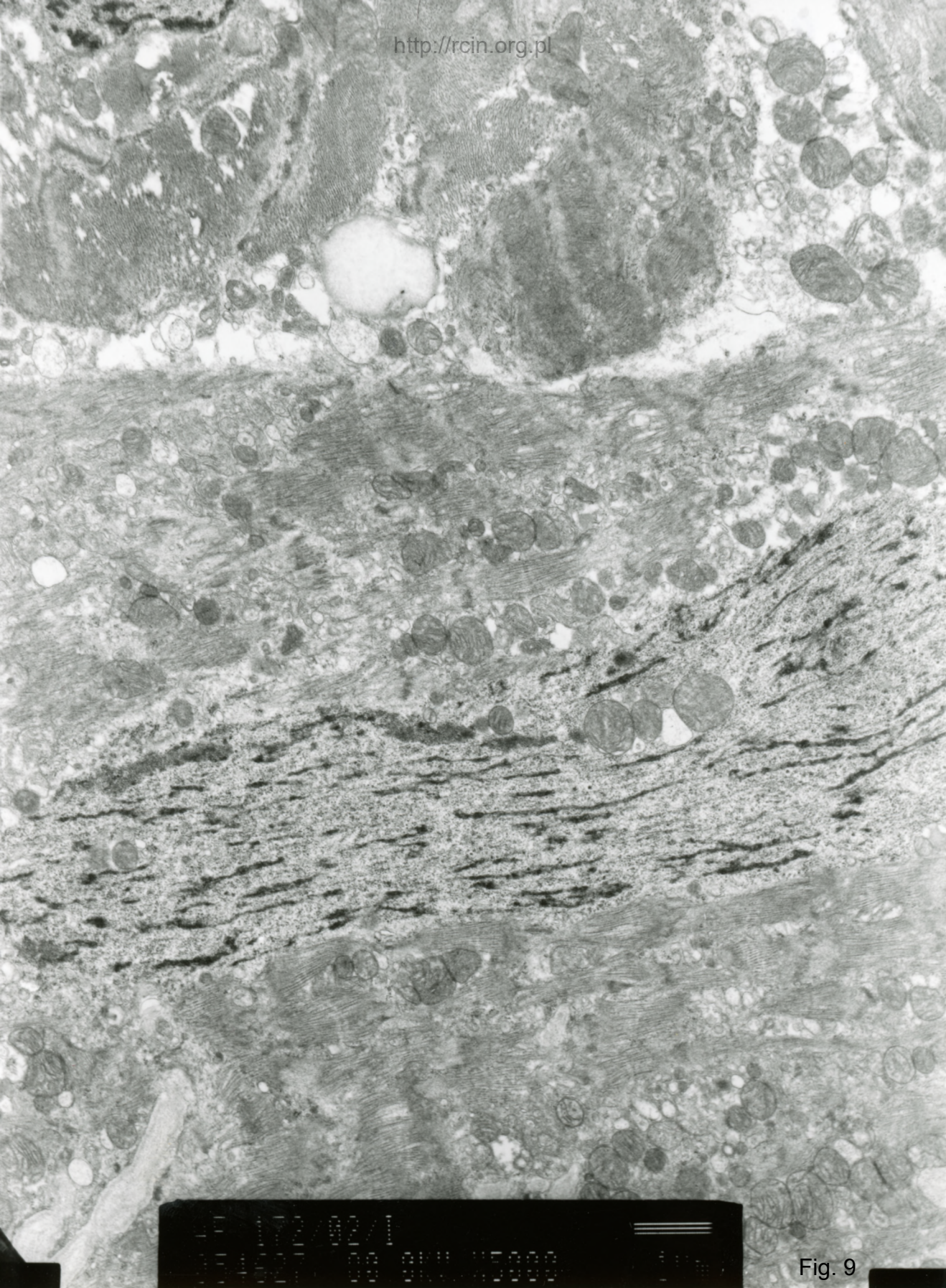
AF 172/02/a/serce
286317 AA AKU 1 X15K 500nm

Fig. 7



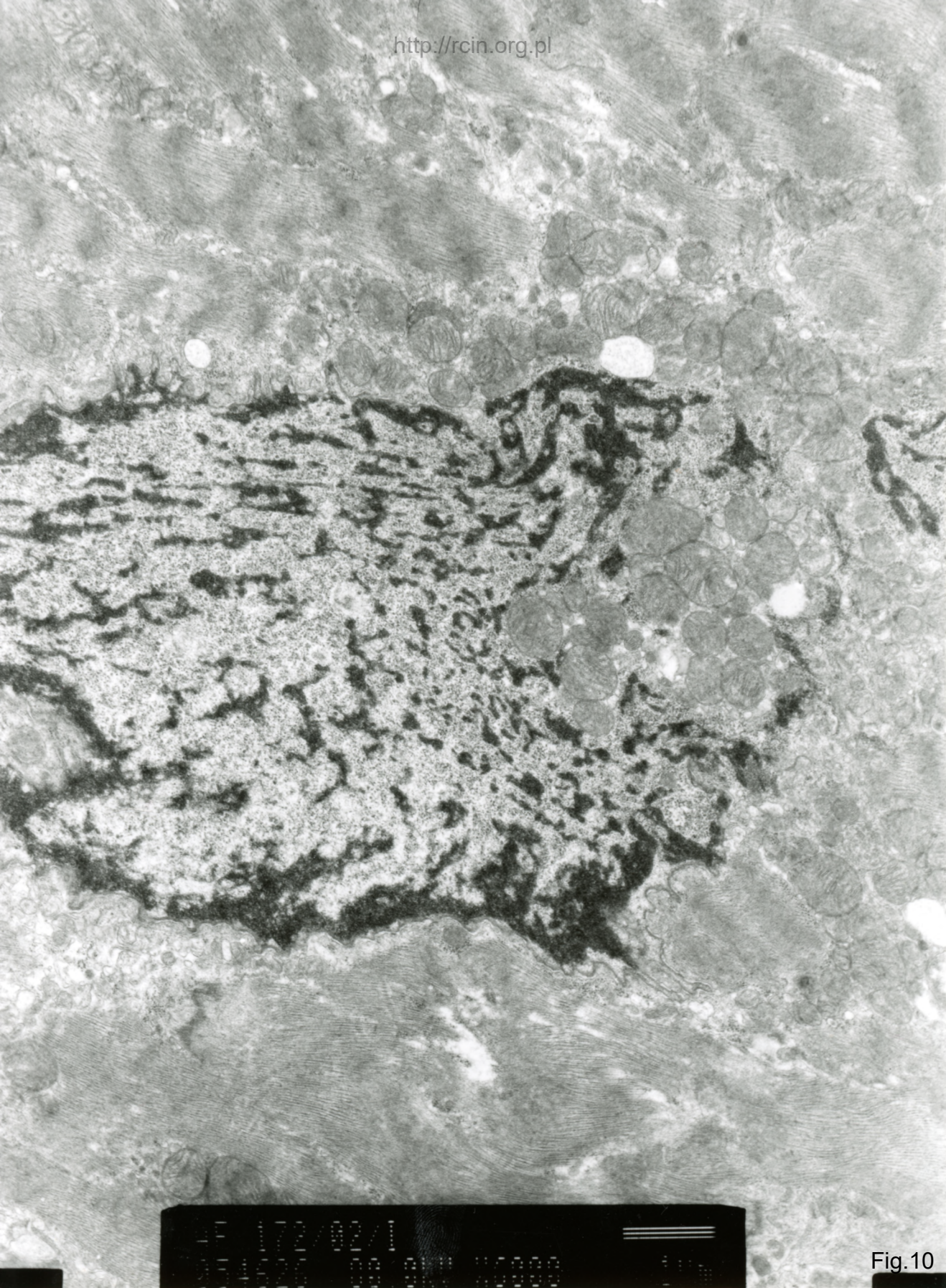
AF 172/00002/a/ser
2P6446 RA OKU TX5AAA 1µm

Fig. 8



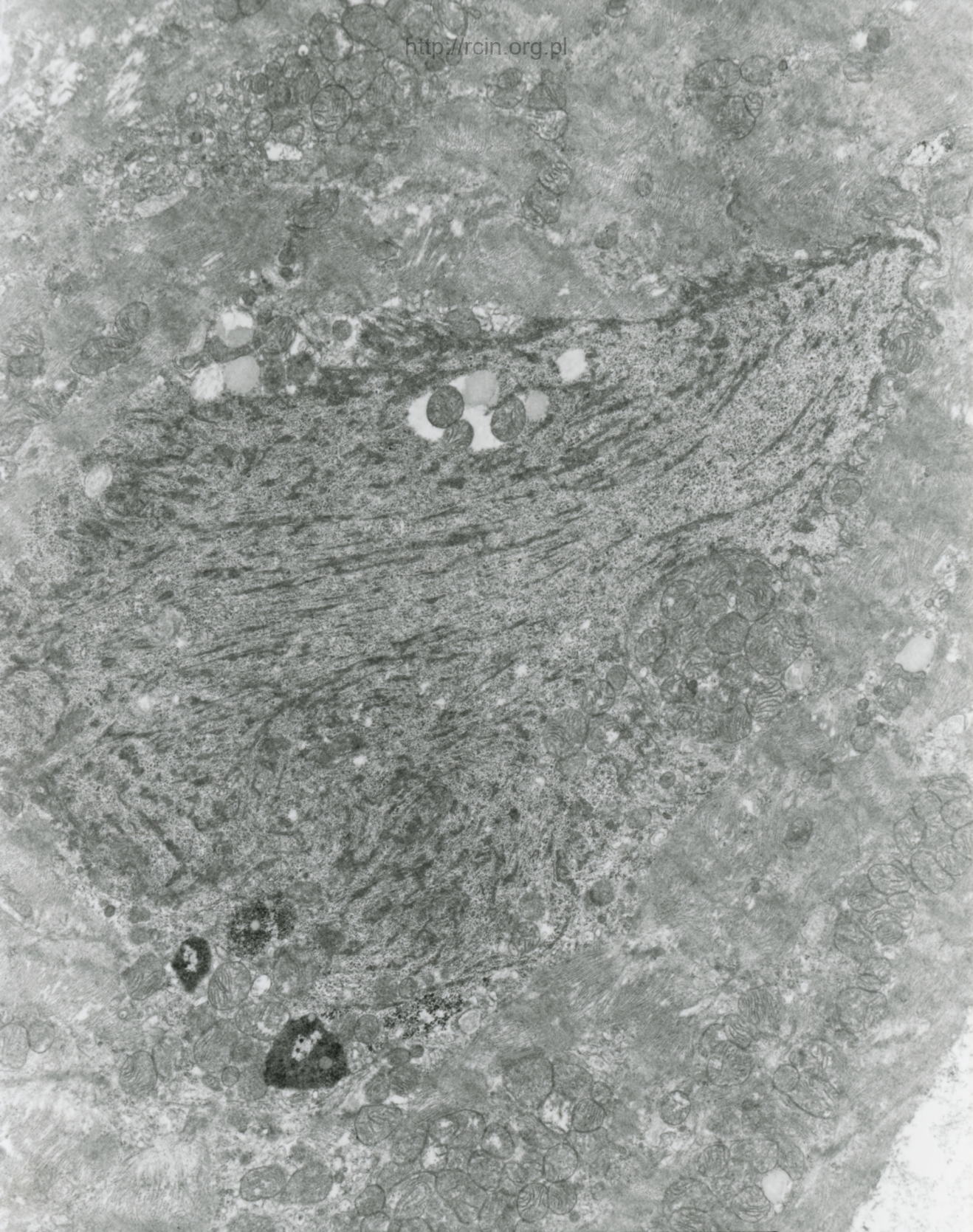
IF 172/02/1
074027 00 011 15000

Fig. 9



172/02/1
04 02 09 00 00 00000

Fig.10



AF 172/02/a/serce
2R6473 80.0KV 1X4000 2P

Fig.11

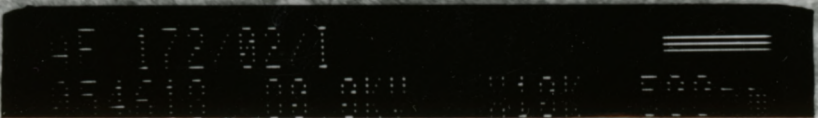
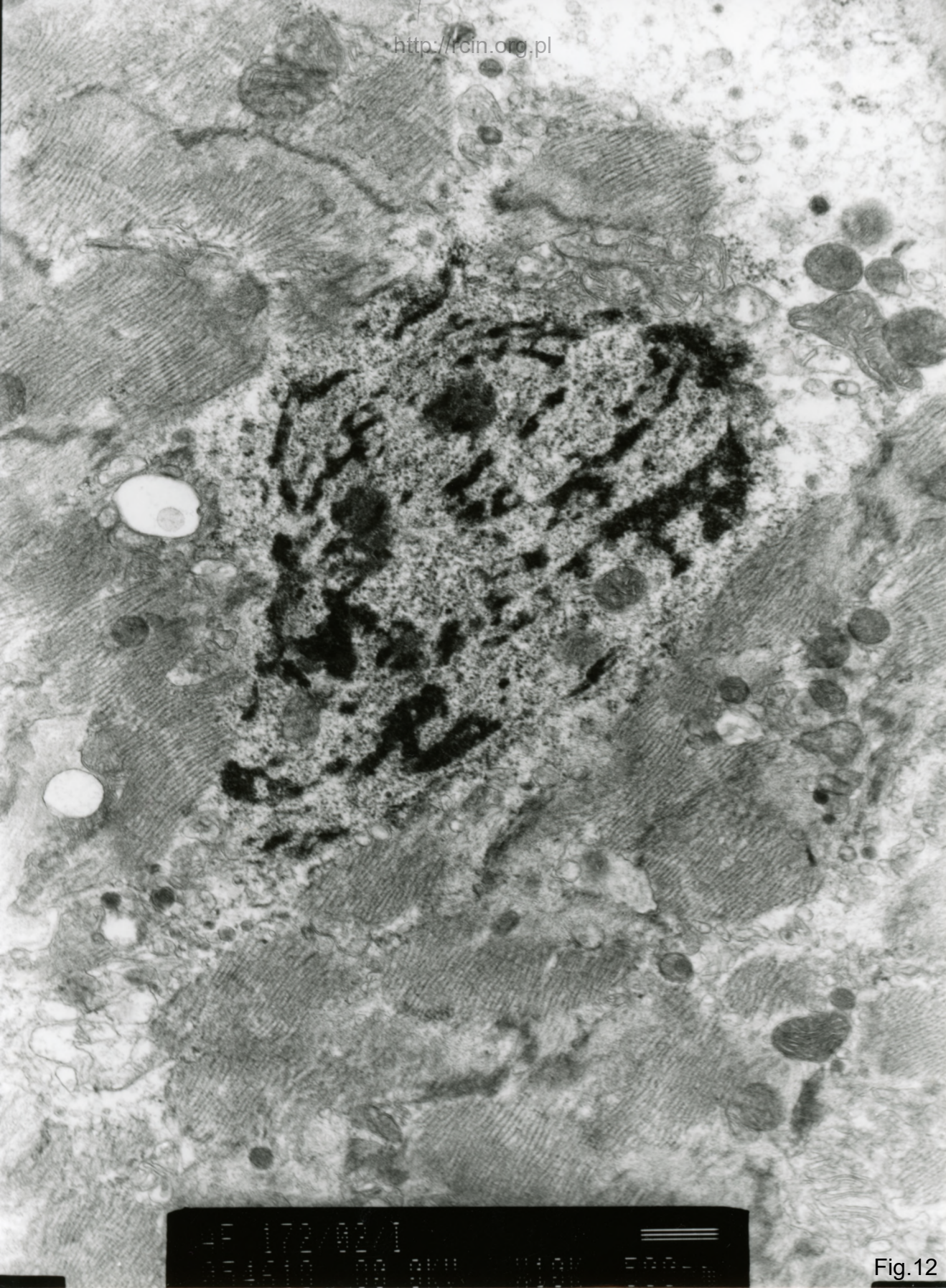
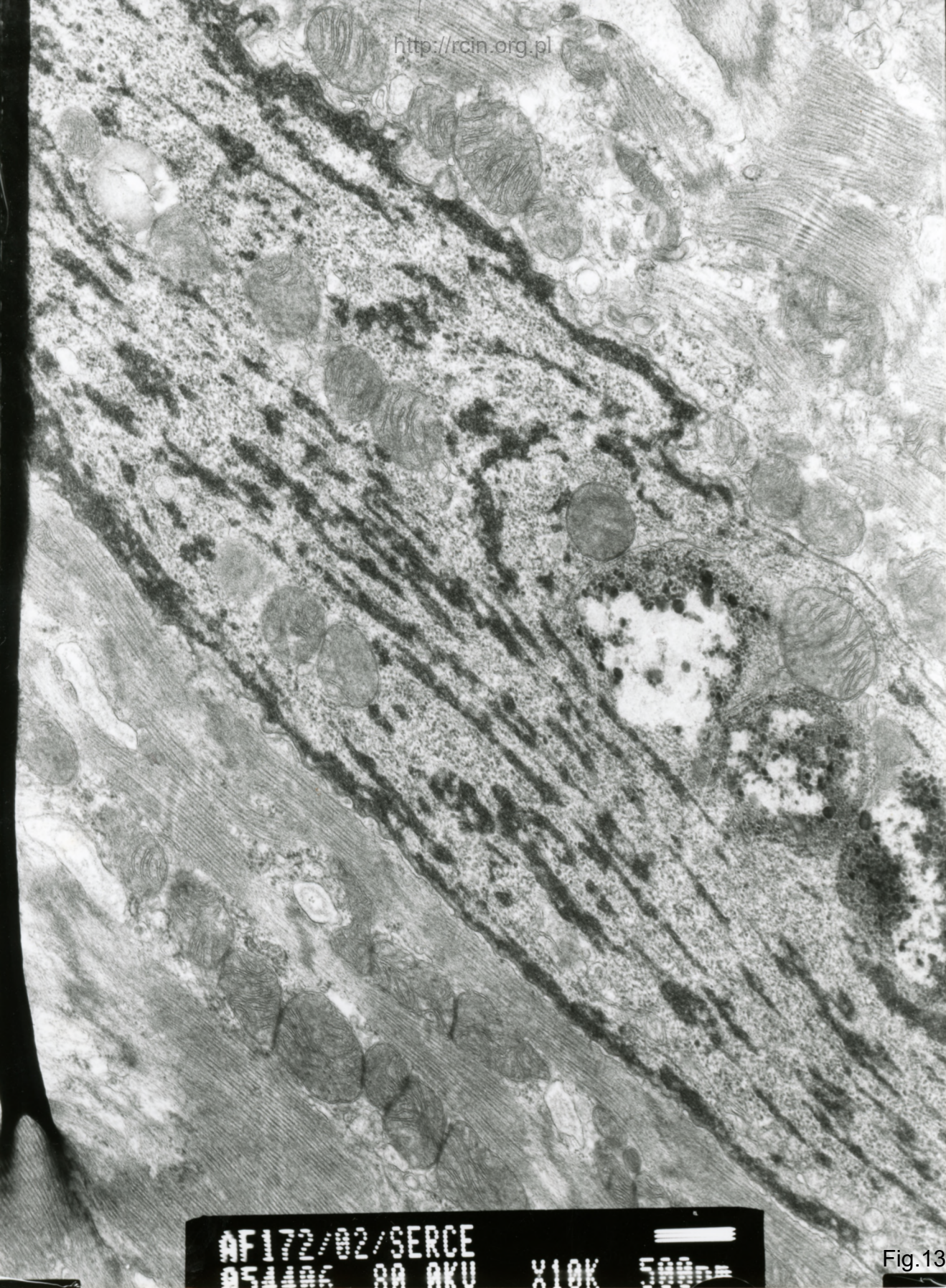
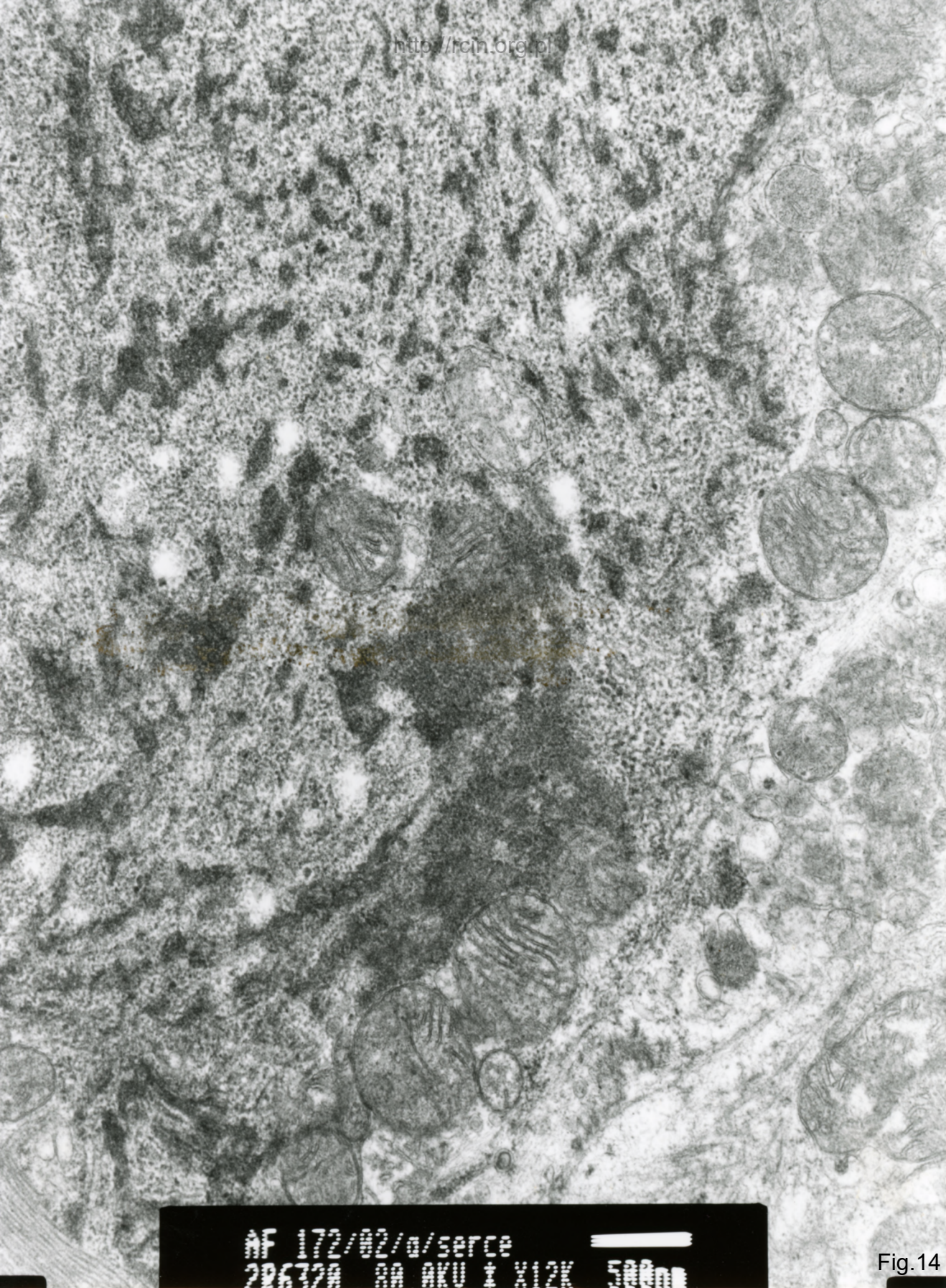


Fig.12



AF172/02/SERCE
054406 80 AKU X10K 500nm

Fig.13



AF 172/02/a/serce
206320 00 AKU ± X12K 500nm

Fig.14

172/02 Biopsja serca, patrz też 47/07

1. 35

Rozpoznanie ?

Ocena ultrastrukturalna ujawniła zatartą strukturę sarkomerów, a także silną dezorganizację i zanik miofibrili. Mitochondria charakteryzowały się jasną macierzą i uszkodzeniem grzebieni mitochondrialnych (Fig. 1-5). Obserwowano też nietypowe mitochondria o ciemnej macierzy i nieprawidłowym przebiegu grzebieni (Fig. 6,7). Jądra kardiomiocytów wykazywały cechy laminopatii. Widoczne były zmiany w ich kształcie m.in. liczne wgłobienia w otocze jądrowej, jak również ubytki w błonie jądrowej, co wiązało się z penetracją organelli komórkowych do wnętrza jąder (Fig. 8-14).

Rozpoznanie ?

Ultrastructural analysis revealed blurred sarcomere pattern as well as disorganization and focally complete atrophy of myofibrils. Significant damage within the mitochondria was noticed—they were characterized by a bright mitochondrial matrix and partial or total loss of cristae (Figs. 1-5). Atypical mitochondria with dark matrix and abnormal course of cristae were also observed (Figs. 6,7). Cardiomyocyte nuclei showed features of laminopathy. The changes in their shape were visible, e.g. numerous indentations in the nuclear envelope, as well as defects in the nuclear membrane, which were associated with penetration of cell organelles to the nuclei (Figs. 8-14).