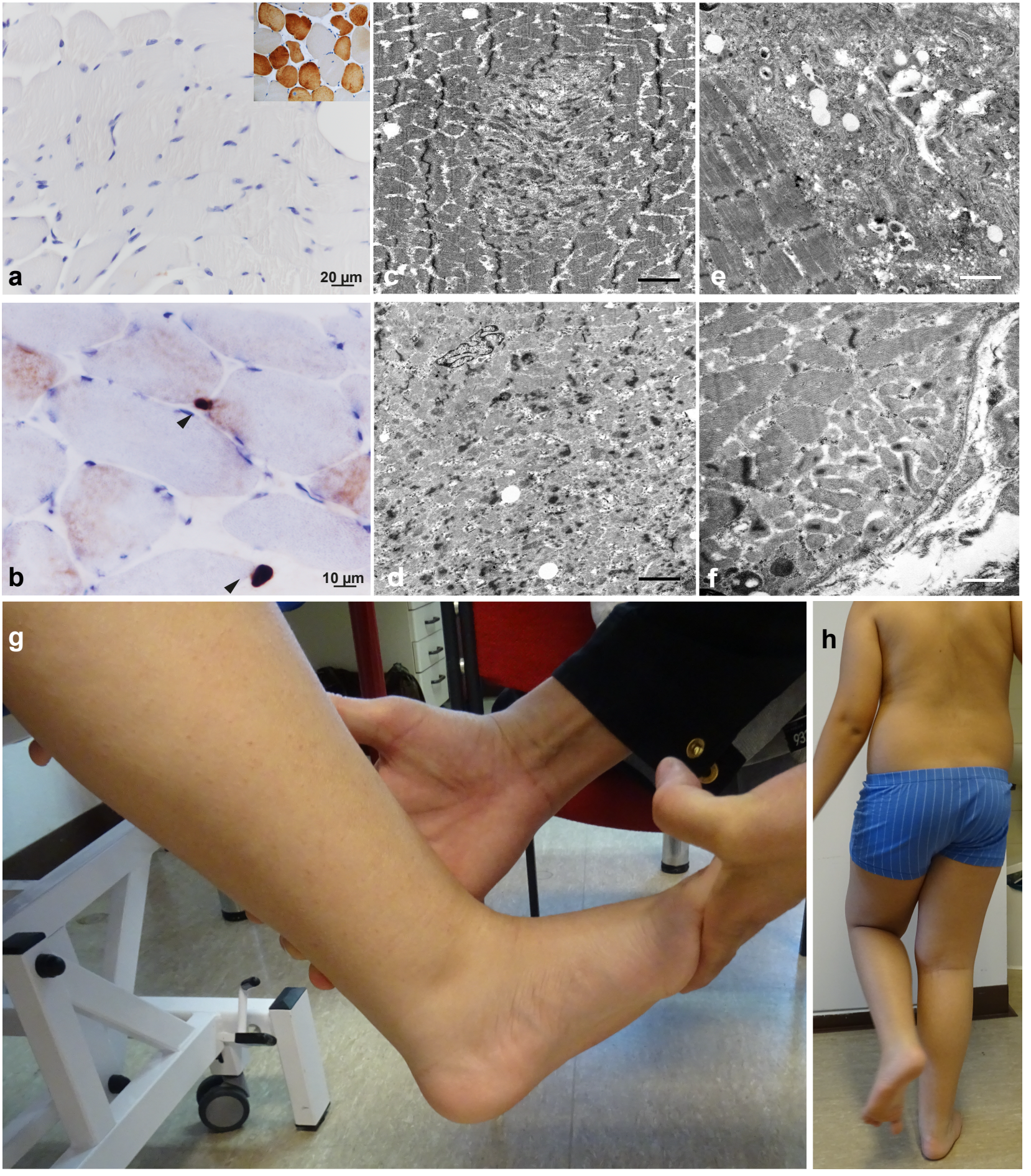
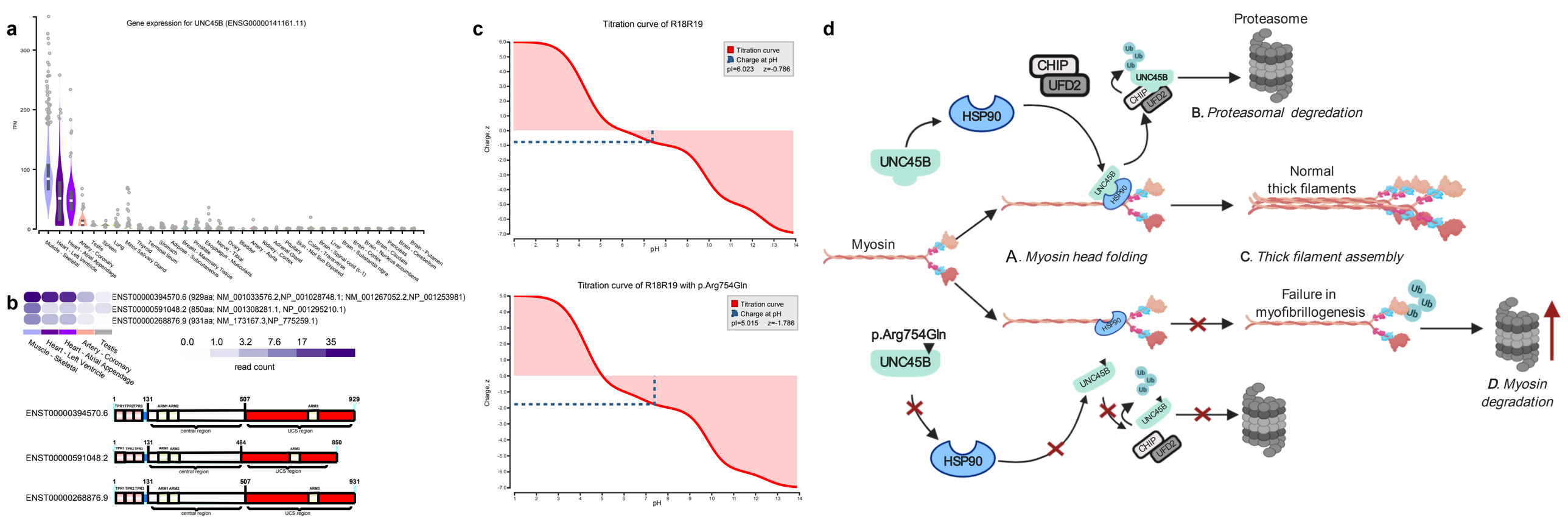

a
20 µm
c
e
b
10 µm
d
f
g
h


a
Gene expression for UNC45B (ENSG00000141161.11)
TPM
300
200
100
0
Muscle - Skeletal
Heart - Left Ventricle
Heart - Atrial Appendage
Artery - Coronary
Testis
Spleen
Lung
Minor Salivary Gland
Thyroid
Terminal Ileum
Stomach
Adipose - Subcutaneous
Breast - Mammary Tissue
Prostate
Esophagus - Muscularis
Nerve - Tibial
Ovary
Bladder
Artery - Aorta
Kidney - Cortex
Adrenal Gland
Pituitary
Skin - Not Sun Exposed
Colon - Transverse
Brain - Spinal cord (c-1)
Liver
Brain - Substantia nigra
Brain - Cortex
Brain - Nucleus accumbens
Brain - Caudate
Pancreas
Brain - Cerebellum
Brain - Putamen
b
ENST00000394570.6 (929aa; NM_001033576.2,NP_001028748.1; NM_001267052.2,NP_001253981)
ENST00000591048.2 (850aa; NM_001308281.1, NP_001295210.1)
ENST00000268876.9 (931aa; NM_173167.3,NP_775259.1)
Muscle - Skeletal
Heart - Left Ventricle
Heart - Atrial Appendage
Artery - Coronary
Testis
0.0
1.0
3.2
7.6
17
35
read count
ENST00000394570.6
1
131
507
929
TPR1 TPR2 TPR3
ARM1 ARM2
ARM3
central region
UCS region
ENST00000591048.2
1
131
484
850
ENST00000268876.9
1
131
507
931
c
Titration curve of R18R19
Titration curve
Charge at pH
pI=6.023 z=-0.786
Charge, z
pH
Titration curve of R18R19 with p.Arg754Gln
Titration curve
Charge at pH
pI=5.015 z=-1.786
Charge, z
pH
d
Proteasome
CHIP
UFD2
Ub
UNC45B
HSP90
B. Proteasomal degredation
Normal
thick filaments
Myosin
A. Myosin head folding
C. Thick filament assembly
Failure in
myofibrillogenesis
p.Arg754Gln
D. Myosin
degradation