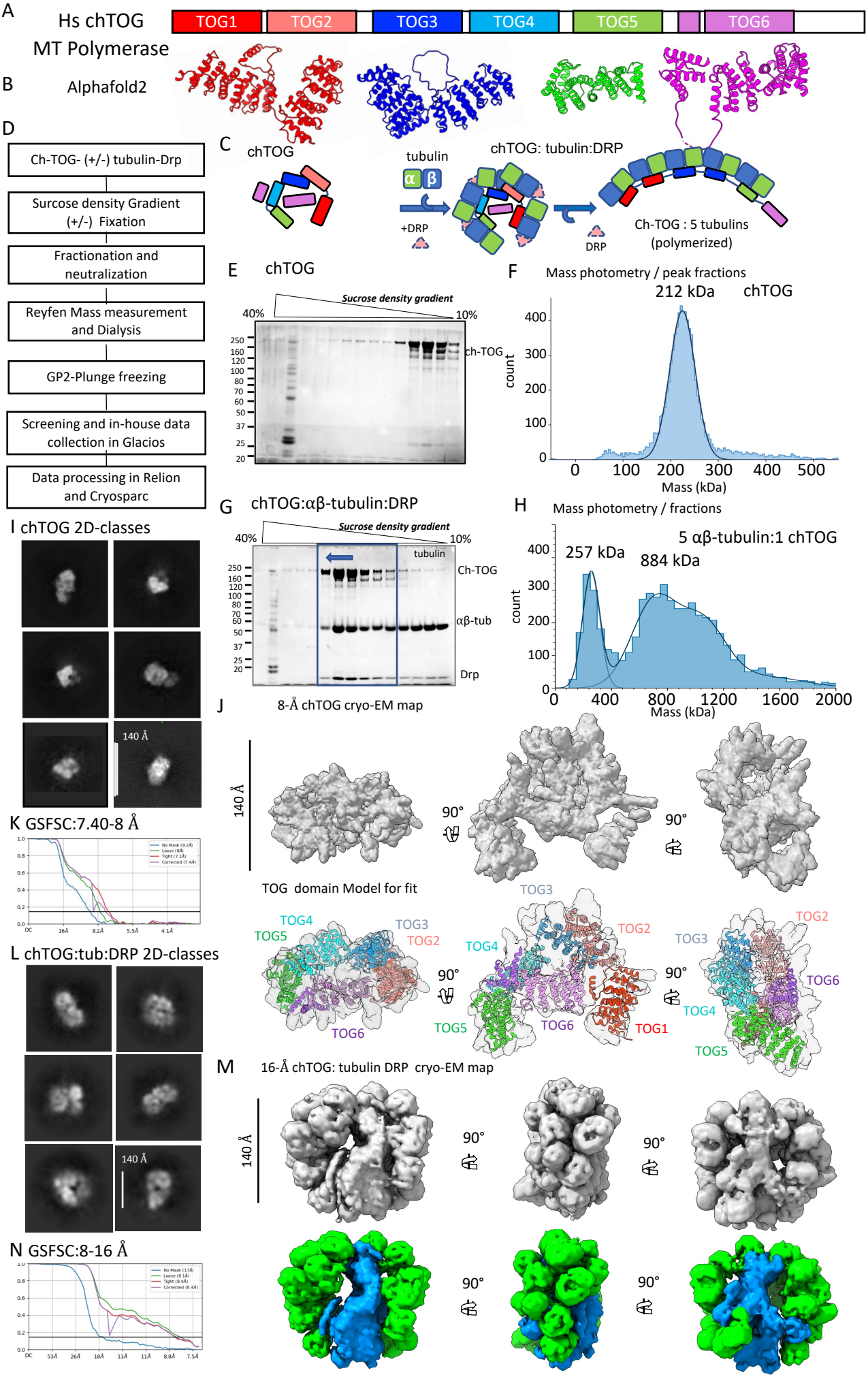
A
Hs chTOG
TOG1
TOG2
TOG3
TOG4
TOG5
TOG6
MT Polymerase
B
Alphafold2
D
Ch-TOG- (+/-) tubulin-Drp
Surcose density Gradient (+/-) Fixation
Fractionation and neutralization
Reyfen Mass measurement and Dialysis
GP2-Plunge freezing
Screening and in-house data collection in Glacios
Data processing in Relion and Cryosparc
C
chTOG
tubulin
α β
+DRP
chTOG: tubulin:DRP
DRP
Ch-TOG : 5 tubulins (polymerized)
E
chTOG
Sucrose density gradient
40%
10%
ch-TOG
F
Mass photometry / peak fractions
212 kDa
chTOG
count
Mass (kDa)
G
chTOG:αβ-tubulin:DRP
Sucrose density gradient
40%
10%
tubulin
Ch-TOG
αβ-tub
Drp
H
Mass photometry / fractions
5 αβ-tubulin:1 chTOG
257 kDa
884 kDa
count
Mass (kDa)
I chTOG 2D-classes
140 Å
J
8-Å chTOG cryo-EM map
140 Å
90°
TOG domain Model for fit
TOG3
TOG4
TOG5
TOG2
TOG6
TOG1
K GSFSC:7.40-8 Å
L chTOG:tub:DRP 2D-classes
140 Å
N GSFSC:8-16 Å
M
16-Å chTOG: tubulin DRP cryo-EM map
140 Å
90°