Figure 1:

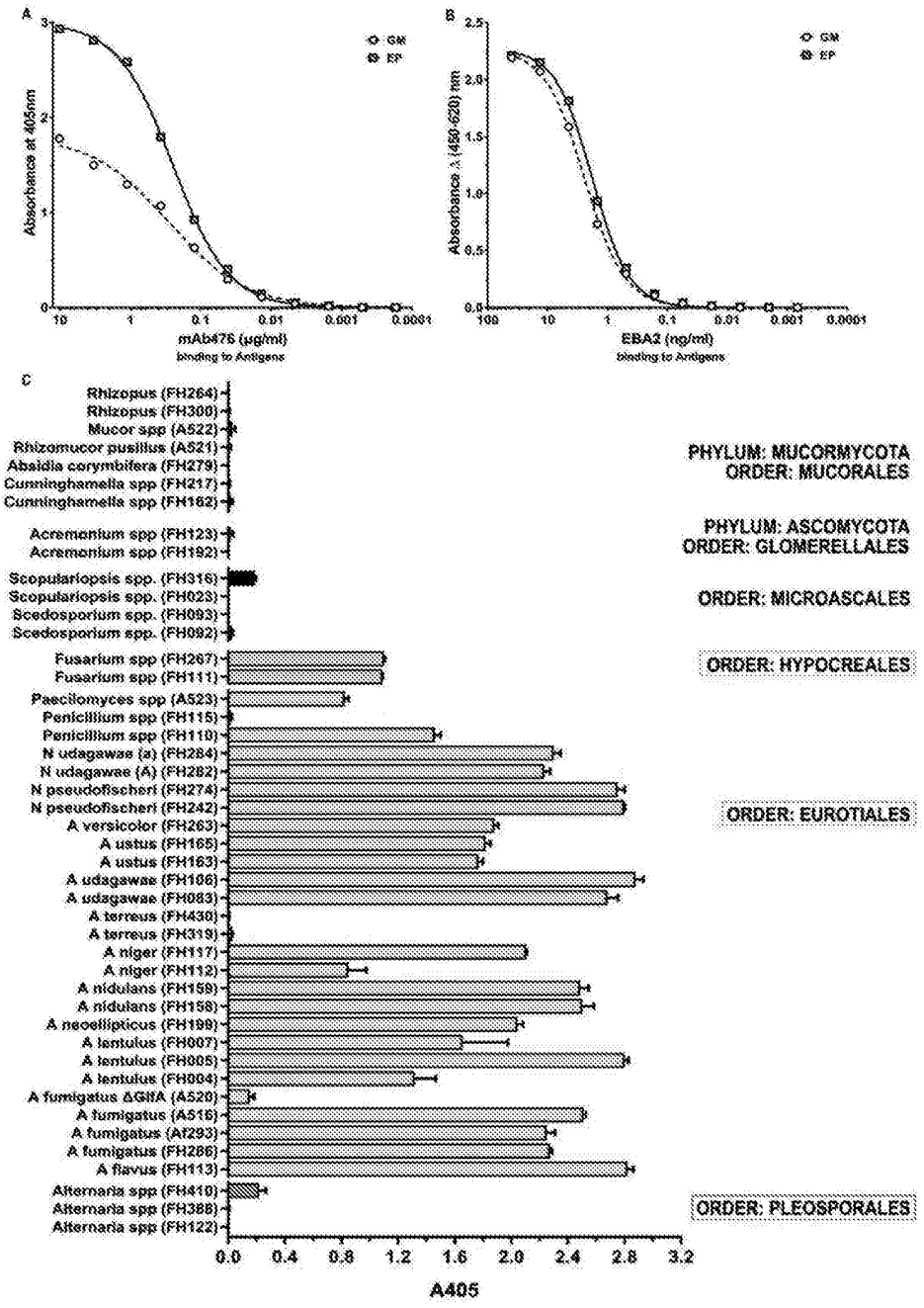
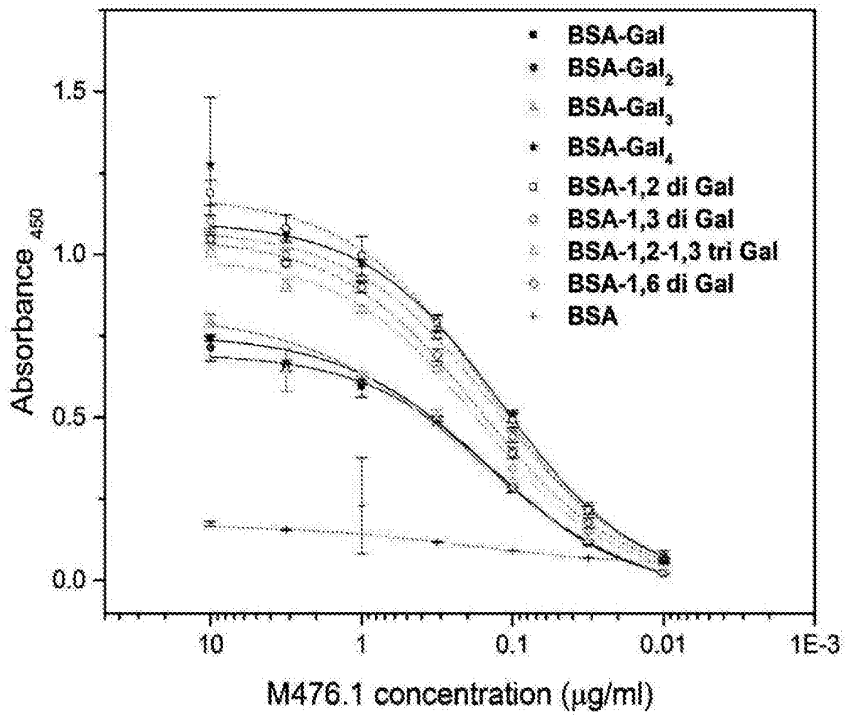

A
GM
EP
Absorbance at 405nm
mAb476 (µg/ml)
binding to Antigens
B
GM
EP
Absorbance Δ (450-620) nm
EBA2 (ng/ml)
binding to Antigens
C
Rhizopus (FH264)
Rhizopus (FH300)
Mucor spp (A522)
Rhizomucor pusillus (A521)
Absidia corymbifera (FH279)
Cunninghamella spp (FH217)
Cunninghamella spp (FH162)
Acremonium spp (FH123)
Acremonium spp (FH192)
Scopulariopsis spp. (FH316)
Scopulariopsis spp. (FH023)
Scedosporium spp. (FH093)
Scedosporium spp. (FH092)
Fusarium spp (FH267)
Fusarium spp (FH111)
Paecilomyces spp (A523)
Penicillium spp (FH115)
Penicillium spp (FH110)
N udagawae (a) (FH284)
N udagawae (A) (FH282)
N pseudofischeri (FH274)
N pseudofischeri (FH242)
A versicolor (FH263)
A ustus (FH165)
A ustus (FH163)
A udagawae (FH166)
A udagawae (FH083)
A terreus (FH430)
A terreus (FH319)
A niger (FH117)
A niger (FH112)
A nidulans (FH159)
A nidulans (FH158)
A neoellipticus (FH199)
A lentulus (FH007)
A lentulus (FH005)
A lentulus (FH004)
A fumigatus ΔGliA (A520)
A fumigatus (A516)
A fumigatus (Af293)
A fumigatus (FH286)
A flavus (FH113)
Alternaria spp (FH410)
Alternaria spp (FH368)
Alternaria spp (FH122)
PHYLUM: MUCORMYCOTA
ORDER: MUCORALES
PHYLUM: ASCOMYCOTA
ORDER: GLOMERELLALES
ORDER: MICROASCALES
ORDER: HYPOCREALES
ORDER: EUROTIALES
ORDER: PLEOSPORALES
A405

Figure 2:


BSA-Gal
BSA-Gal2
BSA-Gal3
BSA-Gal4
BSA-1,2 di Gal
BSA-1,3 di Gal
BSA-1,2-1,3 tri Gal
BSA-1,6 di Gal
BSA
Absorbance 450
1.5
1.0
0.5
0.0
10
1
0.1
0.01
1E-3
M476.1 concentration (µg/ml)

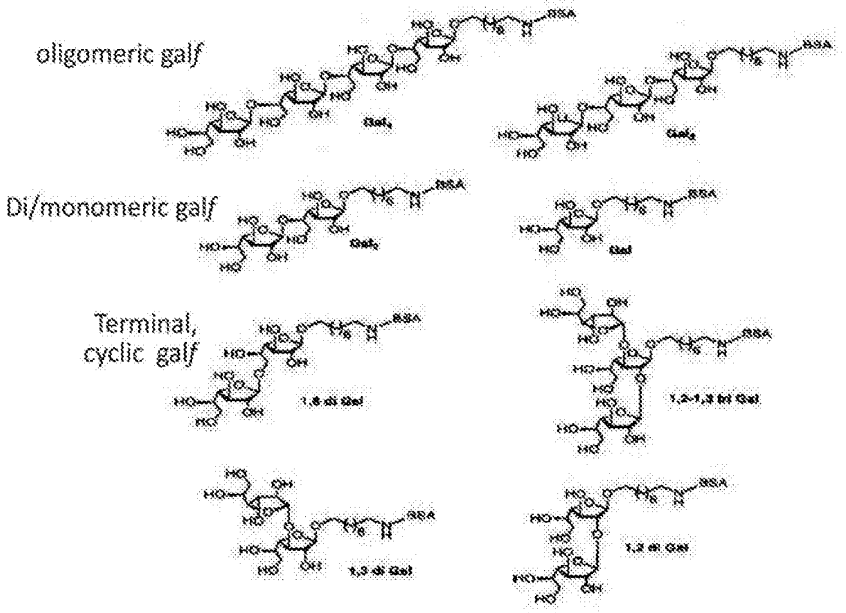

oligomeric galf
Di/monomeric galf
Terminal, cyclic galf

Figure 3:

Categories	Aspergillus proteins in VU7	Aspergillus proteins in VU32
Dehydrogenases	• Metabolism of steroids, cofactors, carbohydrates, lipids, aromatic compounds, amino acids	• Carbohydrate metabolism
	• Dehydrogenases of UNSPECIFIED FUNCTION	
DNA Binding Proteins	• Regulator of g-protein coupled signaling	• Regulator of g-protein coupled signaling
	• Transcription factor (regulatory protein)	• Transcription factor (regulatory protein)
	• Transcription factor of UNSPECIFIED FUNCTION	• Transcriptional regulatory protein (SpC24 domain)
	• Transcription factors, other	
	• Transcription factors for genes required for Galactose & Melibiose catabolism	• Transcription factors for genes required for Galactose & Melibiose catabolism
Other Enzymes	• L-asparagine synthesis & metabolism	• Kinases / Signal transduction
	• Glycoside hydrolases / carbohydrate metabolism	• Transferases
	• Transferases	• Amino acid biosynthesis
	• Protease in programmed cell death	• UNSPECIFIED FUNCTION (P-loop-NTPase domain)
Transport proteins	• Transmembrane transport & metabolism (carbohydrate - fucose)	• Intracellular transport (carbohydrate) & metabolism
		• Intracellular transport (nuclear)
		• Intracellular transport (golgi exocytosis) (Av19 domain)
		• Transmembrane transport & metabolism (carbohydrates)
		• Transmembrane transport (Fe ion)
RNA binding proteins	• Translation of Mitochondrial proteins, Mitochondrial ribosome structure	
	• Translation, ribosome structure	
DNA repair proteins		• DNA replication-recombination-repair enzymes (Pfs & Cdc6 domain)
Cell wall remodeling & stress response	• Proteins matching to Aspf7 and Aspf7-like proteins	

Figure 4:

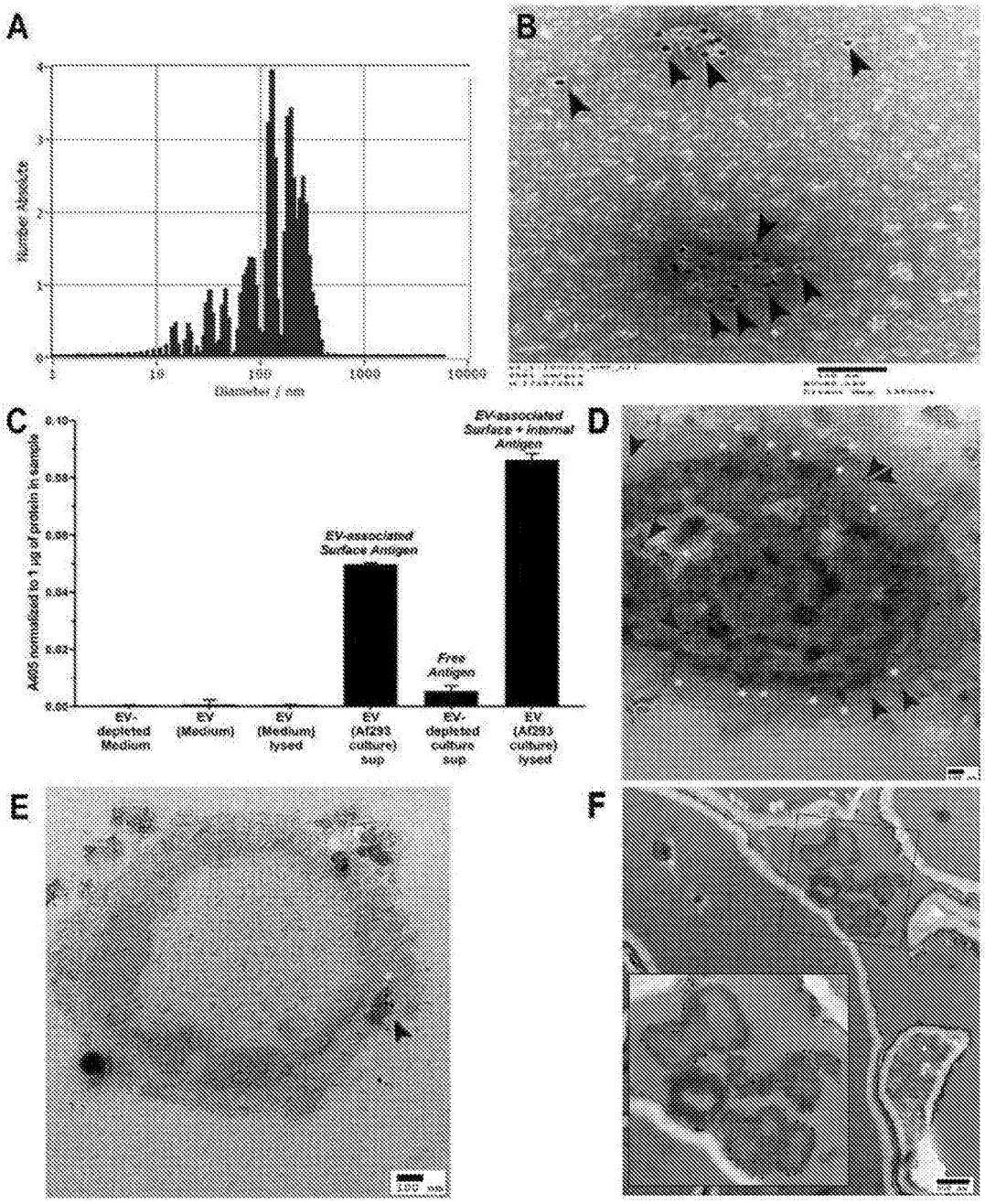

A
Number Absolute
Diameter / nm
B
C
A405 normalized to 1 µg of protein in sample
EV-associated Surface Antigen
Free Antigen
EV-associated Surface + Internal Antigen
EV-depleted Medium
EV (Medium)
EV (Medium) lysed
EV (Af293 culture) sup
EV-depleted culture sup
EV (Af293 culture) lysed
D
E
F

Figure 5:

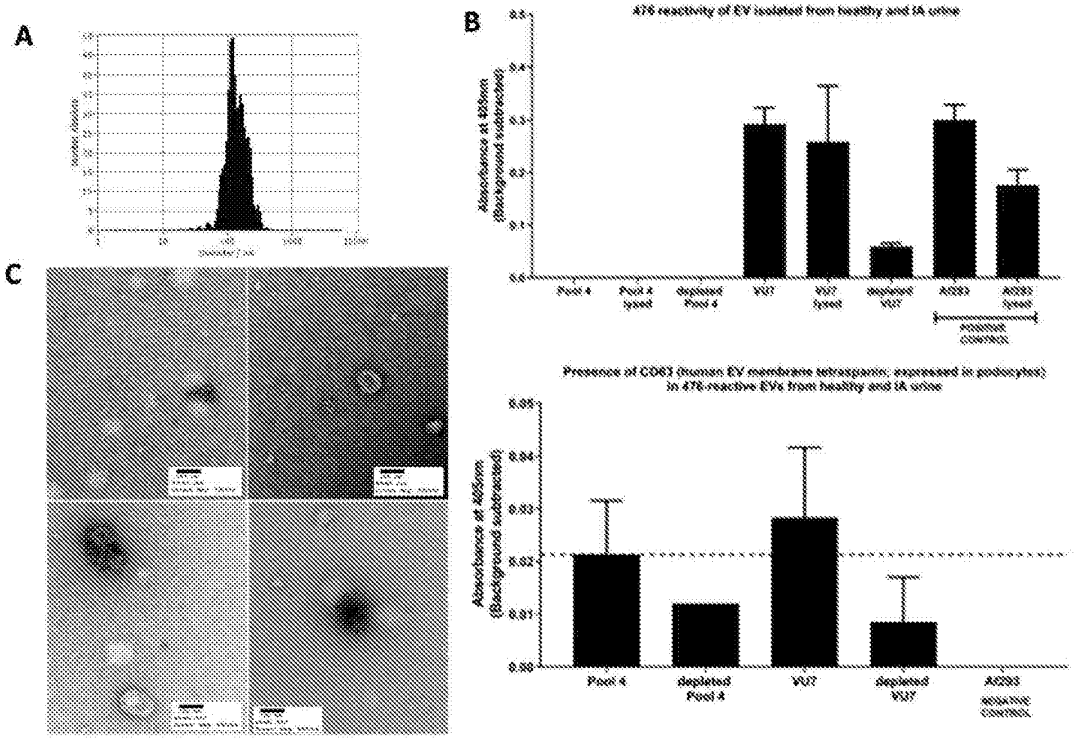
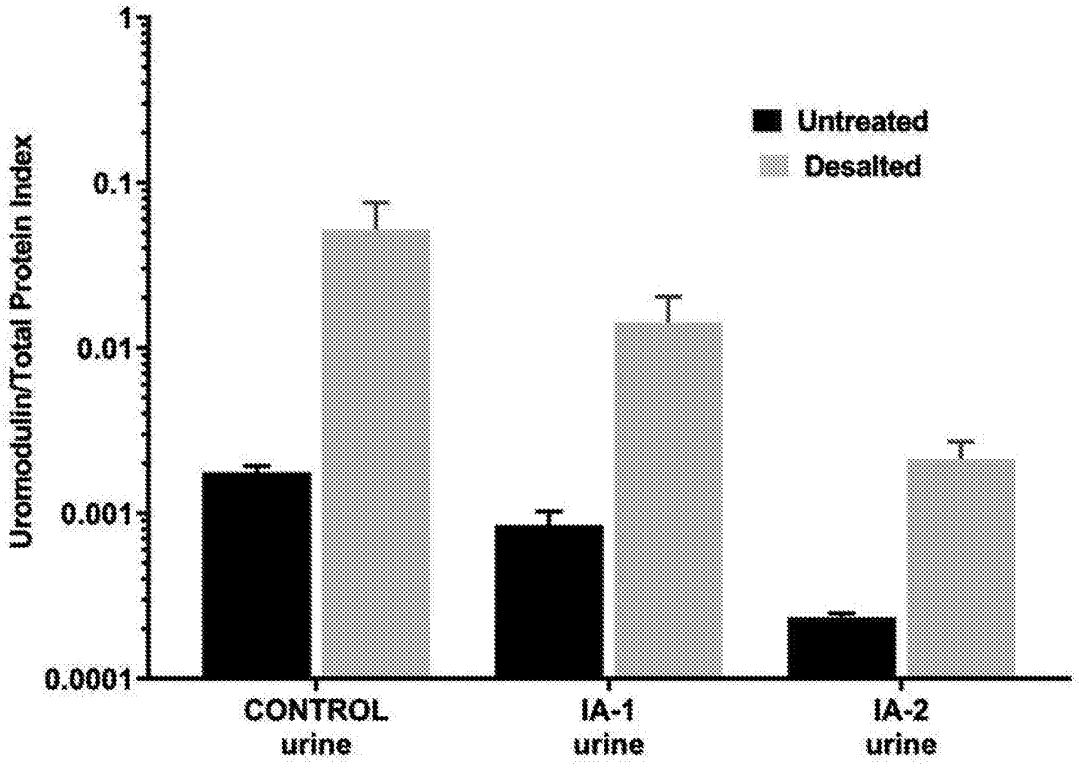

A
B
C
476 reactivity of EV isolated from healthy and IA urine
Absorbance at 405nm (Background subtracted)
Pool 4
Pool 4 lysed
depleted Pool 4
VU7
VU7 lysed
depleted VU7
Af293
Af293 lysed
POSITIVE CONTROL
Presence of CD63 (human EV membrane tetraspanin; expressed in podocytes) in 476-reactive EVs from healthy and IA urine
Absorbance at 405nm (Background subtracted)
Pool 4
depleted Pool 4
VU7
depleted VU7
Af293
NEGATIVE CONTROL

Figure 6:


Uromodulin/Total Protein Index
1
0.1
0.01
0.001
0.0001
Untreated
Desalted
CONTROL urine
IA-1 urine
IA-2 urine

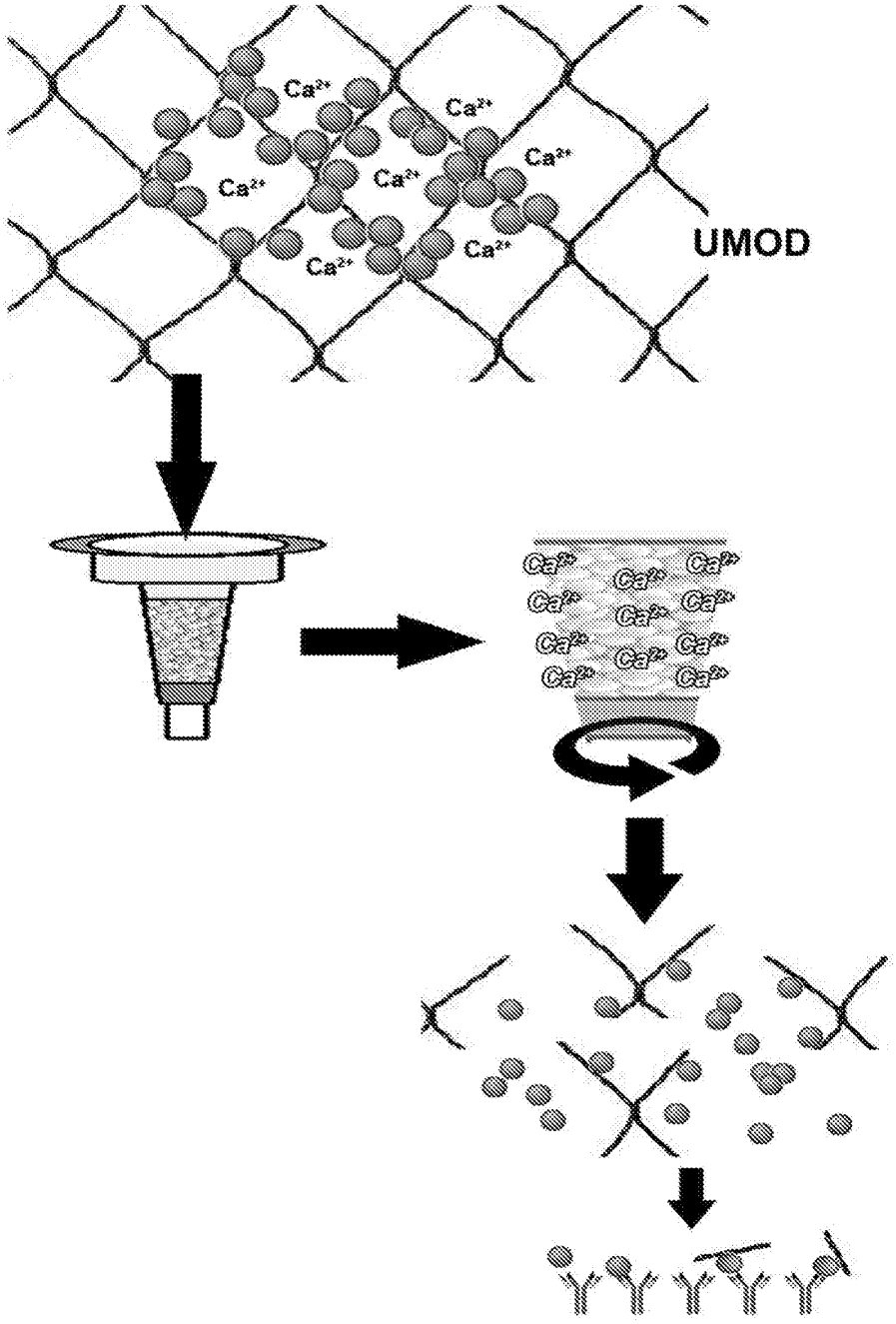



Figure 7: