

Arena
orgdat = data.frame specs = list media = list phenotypes = list mediac = character occmat = Matrix tstep = numeric stir = logical n = integer m = integer
addOrg() addSubs() changeSub() changeOrg() checkPhen() simulate() stirEnv() dat2mat() changeDiff() getSublb()

Eval
medlist = list simlist = list subchange = numeric
addEval() evalArena() getArena() extractMed() plotCurves() getPhenoMat() minePheno()

Substance
smax = numeric diffmat = Matrix name = character difunc = character difspeed = numeric
diffuseR() diffuseCpp()

Organism
lbnd = numeric ubnd = numeric type = character medium = character lpobj = sysBiolAlg fbasol = list lyse = logical feat = list deathrate = numeric duplirate = numeric growthlimit = numeric growtype = character
constrain() consume() emptyHood() getHood() getPhenotype() growExp() growLin() optimizeLP() lysis()

Bac
speed = integer budge = logical chem = character
growth() move() chemotaxis() budding() simBac()

Human
objective = character
changeFobj() cellgrowth() simHum()

