Example #1: Two-dimensional model | linear | I-BAR only | μ = +1.00 | endpoint | see Fig. 2C

```
% geometry parameters
shape = 'flat';
shape_parameters = [];
m.L = 1240;                        % Note: 240 nm are used to hold the membrane
m.dL = 40;
m.width = m.dL;

% biological parameters
m.dh = 1;
m.D = 3;
m.stretch_modulus = 0;
m.rigidity = 50;
Ibar.rigidity = 35;
Nbar.rigidity = 0;                 % Note: rigidity 0 eliminates contribution of the N-BAR
m.c0 = 0;
Ibar.c0 = -1/20;
Nbar.c0 = 1/20;
Ibar.k1 = 0.11;
Nbar.k1 = 0.11;
Ibar.k2 = 36;
Nbar.k2 = 36;
Ibar.standard_state_concentration = 1;
Nbar.standard_state_concentration = 1;
Ibar.mu0 = 0;
Nbar.mu0 = 0;
Ibar.mu = 1.0;
Nbar.mu = -4.0;                    % Note: -4.0 eliminates contribution of the N-BAR
% Ibar.conc = 10;
% Nbar.conc = 10;
Ibar.area = 50;
Nbar.area = 50;
actin.k_on = 0;                    % Note: eliminates contribution of actin
actin.k_off = 0;                   % Note: eliminates contribution of actin
actin.conc = 0.2412;
actin.dh = 2.7;
actin.start_position = -500;       % Note: membrane fluctations will not interact with actin
Ibar_start_saturation = 0;
Nbar_start_saturation = 0;

% numerical parameters
tend = 5000;                       % Note: decides the length of the simulation
plot_on = true;
save_on = false;
plot_everyt = 5000;                % Note: plot intervals (here only endpoint)
plt.ylimit = [-100 600];           % Note: if [] scale will auto-adjust
plt.save_plt = true;               % Note: set to true for saving pictures
save_everyt = 2;
```

Example #2: Two-dimensional | circular | μ = +1.00| endpoint| see Fig. 2H

```
% biological parameters
m.R = 1000;                          % Note: Radius (not fiameter) of circle
m.dR = 40;
m.width = m.dR;
m.dh = 1;
m.D = 3;
m.stretch_modulus = 0;
m.rigidity = 50;
Ibar.rigidity = 35;
Nbar.rigidity = 35;
m.c0 = 0;
Ibar.c0 = -1/20;
Nbar.c0 = 1/20;
Ibar.k1 = 0.11;
Nbar.k1 = 0.11;
Ibar.k2 = 36;
Nbar.k2 = 36;
% Ibar.conc = 10;
% Nbar.conc = 10;
Ibar.standard_state_concentration = 1;
Nbar.standard_state_concentration = 1;
Ibar.mu0 = 0;
Nbar.mu0 = 0;
Ibar.area = 50;
Nbar.area = 50;
Ibar.mu = 1.0;                       % Note: concentration of I-BAR (=μ)
Nbar.mu = 1.0;                       % Note: concentration of N-BAR (=μ)
actin.k_on = 0;                      % Note: eliminates contribution of actin
actin.k_off = 0;                     % Note: eliminates contribution of actin
actin.conc = 0.2412;
actin.dh = 2.7;
actin.start_position = -500;
Ibar_start_saturation = 0;
Nbar_start_saturation = 0;

%% numerical parameters
tend = 300;
plot_on = true;
save_on = false;
plot_everyt = 300;
save_everyt = 2;
plt.save_plt = false;
```

Example #3: Two-dimensional | linear | with actin | μ = +2.50| endpoint| see Fig. 4B

```
% geometry parameters
shape = 'flat';
shape_parameters = [];
m.L = 2240;  %                          % Note: 240 nm are used to hold the membrane
m.dL = 40;   % initial submission = 15
m.width = m.dL;

% biological parameters
m.dh = 1;
m.D = 3;
m.stretch_modulus = 0;
m.rigidity = 50;
Ibar.rigidity = 35;
Nbar.rigidity = 35;
m.c0 = 0;
Ibar.c0 = -1/20;
Nbar.c0 = 1/20;
Ibar.k1 = 0.11;
Nbar.k1 = 0.11;
Ibar.k2 = 36;
Nbar.k2 = 36;
Ibar.standard_state_concentration = 1;
Nbar.standard_state_concentration = 1;
Ibar.mu0 = 0;
Nbar.mu0 = 0;
Ibar.mu = 2.5;                          % Note: concentration of I-BAR (=μ)
Nbar.mu = 2.5;                          % Note: concentration of N-BAR (=μ
% Ibar.conc = 10;
% Nbar.conc = 10;
Ibar.area = 50;
Nbar.area = 50;
actin.k_on = 11.6;                      % Note. Association rate of actin
actin.k_off = 1.4;                      % Note. Dissociation rate of actin
actin.conc = 0.2412;                    % Note. Concentration of actin
actin.dh = 2.7;                         % Note. Size of actin/2
actin.start_position = -0;              % Note: Distance cytoskeleton to membrane
Ibar_start_saturation = 0;
Nbar_start_saturation = 0;

% numerical parameters
tend = 300;                             % Note: Duration of simulation
plot_on = true;
save_on = false;
plot_everyt = 300;
plt.ylimit = [-35 105];                 % Note: Field of view (leave [] for auto-adjustment)
plt.save_plt = true;                    % Note: true = save pictures
save_everyt = 2;                        % Note: interval of saving
```