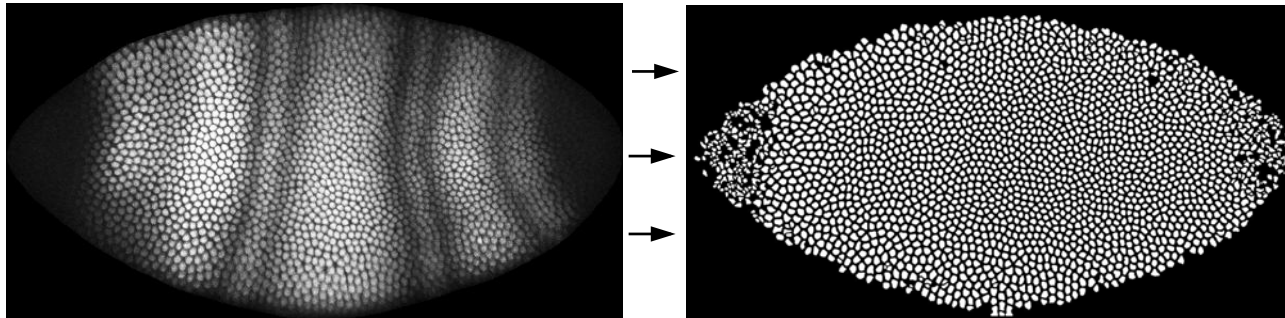


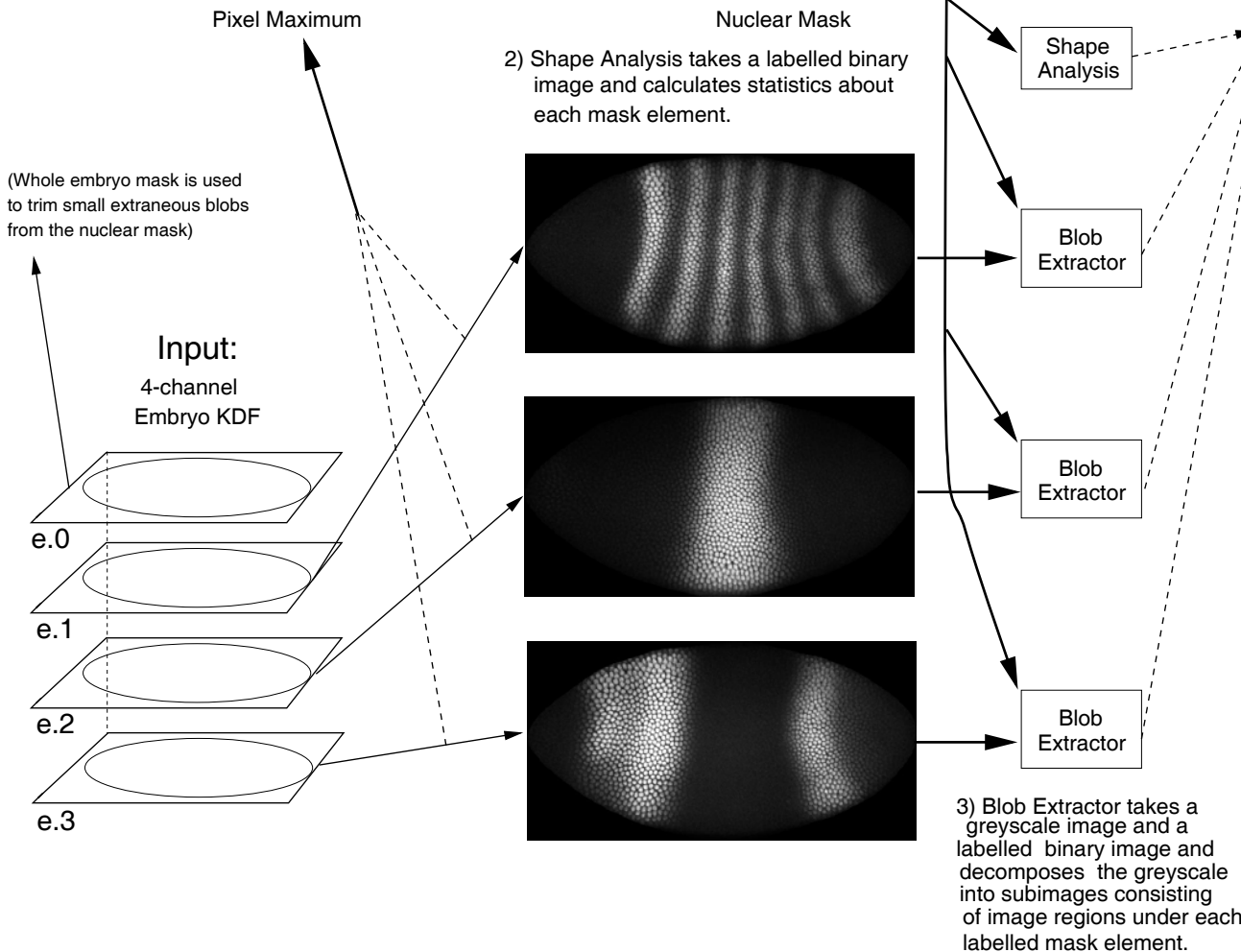
# Overview of the Process of Obtaining Numerical Expression Data from the Embryo Images

1) Embryo Pixel Maximum is converted into Binary Nuclear Mask.



**Output:** a six-column file of numbers in ascii which is a description of the position of all of the nuclei in the embryo and amount of three gene products which each contains.

| 1       | 2        | 3        | 4       | 5       | 6       |
|---------|----------|----------|---------|---------|---------|
| nucleus | centroid | centroid | gene 1  | gene 2  | gene 3  |
| I.D. #  | x-pos.   | y-pos.   | intens. | intens. | intens. |



|     |         |         |         |         |         |
|-----|---------|---------|---------|---------|---------|
| 889 | 45.2288 | 66.1551 | 62.6892 | 168.176 | 32.1486 |
| 890 | 45.2813 | 28.588  | 100.78  | 59.8022 | 26.8352 |
| 891 | 45.2137 | 43.3304 | 108.538 | 115.436 | 33.7949 |
| 892 | 45.2786 | 50.4362 | 93.6757 | 134.486 | 33.0811 |
| 893 | 45.3729 | 74.5351 | 56.1565 | 170.348 | 28.8435 |
| 894 | 45.4272 | 92.1112 | 43.6774 | 144.089 | 23.379  |
| 895 | 45.4441 | 84.9441 | 50.6887 | 167.774 | 25.9717 |
| 896 | 45.4918 | 41.152  | 90.6064 | 112.564 | 31.234  |
| 897 | 45.3861 | 45.7622 | 101.377 | 127.116 | 31.3043 |
| 898 | 45.5517 | 6.9077  | 69.3057 | 30.8599 | 16.4013 |
| 899 | 45.4629 | 10.1493 | 80.6923 | 37.2885 | 19.6154 |
| 900 | 45.502  | 54.4486 | 77.3976 | 138.795 | 31.6145 |
| 901 | 45.5479 | 64.0576 | 65.6707 | 167.927 | 33.1707 |
| 902 | 45.5703 | 71.9063 | 54.1667 | 172.289 | 28.0333 |
| 903 | 45.6468 | 99.7628 | 16.908  | 53.7931 | 9.44828 |
| 904 | 45.6559 | 87.6596 | 47.8702 | 158.336 | 26.1756 |
| 905 | 45.5697 | 11.8179 | 77.1111 | 31.9815 | 17.6852 |
| 906 | 45.7596 | 23.7445 | 93.3163 | 66.0102 | 24.2959 |
| 907 | 45.6692 | 30.6535 | 94.9726 | 90.5205 | 28.6712 |
| 908 | 45.7178 | 33.6092 | 89.5    | 99.5349 | 29.4186 |
| 909 | 45.6606 | 38.4262 | 94.1176 | 106.456 | 31.1029 |
| 910 | 45.7707 | 59.1734 | 67.9596 | 156.202 | 32.303  |
| 911 | 45.7498 | 61.6032 | 60.5169 | 168.438 | 31.8202 |
| 912 | 45.7803 | 77.1059 | 54.1748 | 181.262 | 27.5437 |
| 913 | 45.7585 | 97.4037 | 33.6129 | 99.5    | 16.4435 |
| 914 | 45.8944 | 15.8485 | 91.4535 | 48.7093 | 20.814  |
| 915 | 45.9129 | 18.1075 | 90.2308 | 50.6442 | 21.8365 |
| 916 | 45.8685 | 20.7406 | 97.8022 | 57.0989 | 23.4615 |
| 917 | 45.9512 | 69.5547 | 54.7889 | 176.711 | 31.6889 |
| 918 | 45.9388 | 26.202  | 82.7609 | 78.8696 | 24.6196 |
| 919 | 46.0503 | 52.1118 | 73.1829 | 160.963 | 35.0488 |
| 920 | 46.0312 | 56.7108 | 69.1341 | 168.939 | 34.1951 |
| 921 | 46.1167 | 82.3938 | 55.5752 | 177.991 | 27.0531 |
| 922 | 46.1058 | 47.4943 | 76.4409 | 152.914 | 33.5054 |
| 923 | 46.0705 | 79.7177 | 57.1333 | 184.6   | 29.1905 |
| 924 | 46.189  | 67.3776 | 57.1852 | 185.679 | 31.8642 |
| 925 | 46.2955 | 13.6403 | 81.4    | 51.5333 | 19.6444 |
| 926 | 46.3259 | 89.9785 | 60.8083 | 164.483 | 25.1167 |
| 927 | 46.2412 | 35.3485 | 74.4247 | 117.205 | 28.6027 |
| 928 | 46.2367 | 44.2432 | 70.9024 | 138.366 | 30.8293 |
| 929 | 46.4402 | 40.0019 | 72.7778 | 133.21  | 30.716  |
| 930 | 46.5044 | 49.9016 | 69.1477 | 164.205 | 32.4773 |
| 931 | 46.5494 | 95.1538 | 56.5912 | 140.701 | 20.4672 |
| 932 | 46.5097 | 28.4462 | 64.7701 | 109.494 | 25.2299 |
| 933 | 46.6445 | 31.0465 | 62.6512 | 113.919 | 25.0581 |
| 934 | 46.5891 | 72.8642 | 57.9796 | 188.041 | 30.3061 |