

**Results for Prostate cancer
BioConsert Project – February 2011**

GS=Gold Standard, BI=Bioggle, IE= In Edge, PR = Page Rank and PC = Path Count

Using reduced data sets only

a. Rankings given as input

GS_c:=[[1, 2, 3, 4, 5, 6, 7, 8], [15, 18, 19, 20, 21, 23, 24, 25, 26, 29, 34, 35, 37, 40, 48, 52, 53, 54, 55, 56, 59, 61, 67, 69, 71, 76, 77, 79, 80, 81, 83, 84, 86, 88, 89, 90, 91, 93, 96, 99, 104, 105, 106, 108, 110, 111, 112, 117, 118, 121, 145, 147, 154, 156, 157, 158, 163, 164, 166, 170, 172, 173, 176, 177, 178, 180, 184, 187, 190, 191, 193, 195, 196, 197, 199, 200, 202, 214, 215, 216, 217, 218, 219, 232, 236, 253, 269, 273, 294, 295, 298, 300, 302, 313, 316, 317, 318, 319, 320, 321, 322, 328, 331, 332, 333, 334, 335, 343, 345, 347, 349, 359, 360, 364, 367, 369, 374, 379, 380, 382, 408, 409, 411, 413, 416, 417, 418, 424, 427, 435, 436, 440, 447, 448, 453, 454, 455, 462, 470, 473, 474, 476, 477, 483, 484, 486, 491, 492, 493, 494, 513, 516, 522, 528, 529, 535, 536, 537, 538, 544, 545, 551, 554, 555, 556, 570, 571, 572, 582, 585, 592, 593, 602, 603, 604, 605, 606, 617, 618, 620, 624, 626, 627, 630, 631, 632, 633, 634, 638, 639, 640, 646, 653, 666, 668, 672, 673, 676, 677, 679, 681, 682, 686, 687, 690, 700, 701, 703, 705, 708]]

BI_c:=[[2], [88], [170], [56], [3], [7], [328], [6, 55], [417], [253], [4, 158], [536], [5], [1], [632], [556], [190], [80], [24], [23, 379, 454, 528], [380, 529, 535], [382, 585], [538, 544], [537], [374], [545], [69, 112, 369, 708], [705], [273], [191], [84], [8, 76, 455, 483, 571], [20], [145], [236], [21, 25, 26, 35, 48, 52, 61, 77, 83, 90, 91, 93, 96, 105, 108, 117, 118, 196, 197, 232, 298, 302, 317, 331, 332, 335, 360, 367, 409, 427, 436, 447, 448, 453, 462, 470, 473, 474, 476, 486, 492, 551, 617, 624, 627, 633, 634, 640, 646, 672, 676, 677, 679, 681, 682, 701], [184], [37, 99, 121, 166, 187, 193, 195, 313, 322, 555, 690], [294], [300], [15, 424, 554], [18, 19, 29, 34, 40, 53, 54, 59, 67, 71, 79, 81, 86, 89, 104, 110, 147, 154, 156, 157, 172, 173, 176, 177, 178, 180, 199, 200, 202, 214, 215, 216, 217, 218, 269, 295, 316, 318, 319, 320, 321, 334, 343, 345, 347, 349, 359, 364, 408, 413, 416, 418, 435, 440, 477, 484, 491, 493, 494, 570, 572, 582, 592, 593, 602, 603, 604, 605, 606, 618, 620, 626, 630, 638, 639, 653, 668, 673, 686, 687, 700, 703], [411], [111, 219, 333, 666], [106, 513, 516, 522], [631], [163, 164]]

IE_c:=[[184, 273, 411], [1, 15, 20, 84, 111, 145, 170, 191, 219, 236, 253, 294, 300, 333, 424, 536, 554, 556, 632, 666, 705], [2, 3, 4, 5, 6, 7, 8, 18, 19, 21, 25, 26, 29, 34, 35, 40, 48, 52, 53, 54, 55, 56, 59, 61, 67, 69, 71, 76, 77, 79, 80, 81, 83, 86, 88, 89, 90, 91, 93, 96, 104, 105, 108, 110, 112, 117, 118, 147, 154, 156, 157, 158, 163, 164, 172, 173, 176, 177, 178, 180, 190, 196, 197, 199, 200, 202, 214, 215, 216, 217, 218, 232, 269, 295, 298, 302, 316, 317, 318, 319, 320, 321, 328, 331, 332, 334, 335, 343, 345, 347, 349, 359, 360, 364, 367, 369, 408, 409, 413, 416, 417, 418, 427, 435, 436, 440, 447, 448, 453, 455, 462, 470, 473, 474, 476, 477, 483, 484, 486, 491, 492, 493, 494, 551, 570, 571, 572, 582, 592, 593, 602, 603, 604, 605, 606, 617, 618, 620, 624, 626, 627, 630, 633, 634, 638, 639, 640, 646, 653, 668, 672, 673, 676, 677, 679, 681, 682, 686, 687,

700, 701, 703, 708], [23, 24, 37, 99, 106, 121, 166, 187, 193, 195, 313, 322, 374, 379, 380, 382, 454, 513, 516, 522, 528, 529, 535, 537, 538, 544, 545, 555, 585, 631, 690]]

PR_c:=[[2], [88], [3], [56], [328], [7], [170], [417], [55], [4, 5, 158, 455], [6], [8], [84], [253], [571], [1], [190], [483], [556], [18, 21, 25, 26, 29, 34, 40, 48, 52, 53, 59, 61, 67, 69, 71, 77, 79, 80, 81, 83, 86, 90, 91, 93, 104, 105, 108, 110, 111, 112, 117, 118, 145, 147, 154, 156, 157, 173, 176, 177, 178, 197, 199, 202, 214, 215, 216, 217, 218, 219, 269, 294, 295, 302, 318, 319, 320, 321, 331, 332, 334, 335, 343, 345, 359, 360, 364, 367, 369, 409, 413, 416, 418, 427, 435, 436, 440, 447, 448, 453, 462, 470, 473, 474, 476, 477, 484, 491, 492, 493, 494, 551, 570, 572, 582, 592, 602, 603, 604, 605, 606, 617, 620, 624, 626, 627, 630, 632, 634, 638, 639, 646, 653, 668, 672, 676, 677, 679, 682, 686, 687, 701, 703, 708], [236], [333, 411, 424], [76], [536], [20], [15], [54, 89, 172, 180, 196, 200, 232, 298, 317, 347, 349, 408, 486, 554, 633, 673], [300], [666], [705], [19, 96, 316, 593, 618, 640, 681, 700], [35], [273], [184], [631], [191], [23, 24, 374, 379, 380, 382, 454, 528, 529, 535, 537, 538, 544, 545, 585], [37, 99, 121, 166, 187, 193, 195, 313, 322, 555, 690], [106, 513, 516, 522], [163, 164]]

PC_c:=[[170, 632], [1, 273, 536], [2, 3, 4, 5, 6, 7, 55, 56, 69, 80, 88, 112, 145, 158, 184, 191, 236, 253, 328, 369, 411, 417, 556, 708], [15, 20, 23, 24, 106, 111, 219, 300, 333, 374, 379, 380, 382, 424, 454, 513, 516, 522, 528, 529, 535, 537, 538, 544, 545, 554, 585, 666, 705], [8, 18, 19, 21, 25, 26, 29, 34, 35, 37, 40, 48, 52, 53, 54, 59, 61, 67, 71, 76, 77, 79, 81, 83, 84, 86, 89, 90, 91, 93, 96, 99, 104, 105, 108, 110, 117, 118, 121, 147, 154, 156, 157, 166, 172, 173, 176, 177, 178, 180, 187, 190, 193, 195, 196, 197, 199, 200, 202, 214, 215, 216, 217, 218, 232, 269, 294, 295, 298, 302, 313, 316, 317, 318, 319, 320, 321, 322, 331, 332, 334, 335, 343, 345, 347, 349, 359, 360, 364, 367, 408, 409, 413, 416, 418, 427, 435, 436, 440, 447, 448, 453, 455, 462, 470, 473, 474, 476, 477, 483, 484, 486, 491, 492, 493, 494, 551, 555, 570, 571, 572, 582, 592, 593, 602, 603, 604, 605, 606, 617, 618, 620, 624, 626, 627, 630, 631, 633, 634, 638, 639, 640, 646, 653, 668, 672, 673, 676, 677, 679, 681, 682, 686, 687, 690, 700, 701, 703], [163, 164]]

b. Results

Using BioConsert

M4:= [[170], [2, 3, 6, 7, 55, 56, 88, 328, 417], [253], [632], [1, 536], [273], [4, 5, 158], [556], [84], [190], [69, 80, 112, 145, 369, 708], [236], [184, 411], [705], [191], [8, 455, 483, 571], [15, 20, 111, 219, 300, 333, 424, 554, 666], [18, 19, 21, 25, 26, 29, 34, 35, 40, 48, 52, 53, 54, 59, 61, 67, 71, 76, 77, 79, 81, 83, 86, 89, 90, 91, 93, 96, 104, 105, 108, 110, 117, 118, 147, 154, 156, 157, 172, 173, 176, 177, 178, 180, 196, 197, 199, 200, 202, 214, 215, 216, 217, 218, 232, 269, 294, 295, 298, 302, 316, 317, 318, 319, 320, 321, 331, 332, 334, 335, 343, 345, 347, 349, 359, 360, 364, 367, 408, 409, 413, 416, 418, 427, 435, 436, 440, 447, 448, 453, 462, 470, 473, 474, 476, 477, 484, 486, 491, 492, 493, 494, 551, 570, 572, 582, 592, 593, 602, 603, 604, 605, 606, 617, 618, 620, 624, 626, 627, 630, 633, 634, 638, 639, 640, 646, 653, 668, 672, 673, 676, 677, 679, 681, 682, 686, 687, 700, 701, 703], [23, 24, 374, 379, 380, 382, 454, 528, 529, 535, 537, 538, 544, 545, 585], [37, 99, 121, 166, 187, 193, 195, 313, 322, 555, 631, 690], [106,

513, 516, 522], [163, 164]];
Distance to [BI,IE,PR,PC] = 26 392

Using Fagin's approach

Fagin1:=

[[170], [2], [88], [56], [3], [7], [328], [55], [417], [536], [1], [4], [158], [5], [6], [253], [632], [556], [273], [84], [191], [145], [236], [705], [20], [80], [69], [112], [369], [708], [111], [184], [219], [190], [8], [455], [483], [571], [15], [300], [424], [554], [411], [21], [25], [26], [48], [52], [61], [77], [83], [90], [91], [93], [105], [108], [117], [118], [197], [302], [331], [332], [333], [335], [360], [367], [409], [427], [436], [447], [448], [453], [462], [470], [473], [474], [476], [492], [551], [617], [624], [627], [634], [646], [672], [676], [677], [679], [682], [701], [294], [666], [18], [23], [24], [29], [34], [35], [40], [53], [59], [67], [71], [76], [79], [81], [86], [96], [104], [110], [147], [154], [156], [157], [173], [176], [177], [178], [196], [199], [202], [214], [215], [216], [217], [218], [232], [269], [295], [298], [317], [318], [319], [320], [321], [334], [343], [345], [359], [364], [374], [379], [380], [382], [413], [416], [418], [435], [440], [454], [477], [484], [486], [491], [493], [494], [528], [529], [535], [537], [538], [544], [545], [570], [572], [582], [585], [592], [602], [603], [604], [605], [606], [620], [626], [630], [633], [638], [639], [640], [653], [668], [681], [686], [687], [703], [54], [89], [172], [180], [200], [347], [349], [408], [673], [19], [316], [593], [618], [700], [37], [99], [121], [166], [187], [193], [195], [313], [322], [555], [690], [631], [106], [513], [516], [522], [163], [164]]

Distance to [BI,IE,PR,PC] = 50803

Fagin2:=[[170], [1, 2, 3, 4, 5, 6, 7, 8, 15, 18, 19, 20, 21, 23, 24, 25, 26, 29, 34, 35, 37, 40, 48, 52, 53, 54, 55, 56, 59, 61, 67, 69, 71, 76, 77, 79, 80, 81, 83, 84, 86, 88, 89, 90, 91, 93, 96, 99, 104, 105, 106, 108, 110, 111, 112, 117, 118, 121, 145, 147, 154, 156, 157, 158, 163, 164, 166, 172, 173, 176, 177, 178, 180, 184, 187, 190, 191, 193, 195, 196, 197, 199, 200, 202, 214, 215, 216, 217, 218, 219, 232, 236, 253, 269, 273, 294, 295, 298, 300, 302, 313, 316, 317, 318, 319, 320, 321, 322, 328, 331, 332, 333, 334, 335, 343, 345, 347, 349, 359, 360, 364, 367, 369, 374, 379, 380, 382, 408, 409, 411, 413, 416, 417, 418, 424, 427, 435, 436, 440, 447, 448, 453, 454, 455, 462, 470, 473, 474, 476, 477, 483, 484, 486, 491, 492, 493, 494, 513, 516, 522, 528, 529, 535, 536, 537, 538, 544, 545, 551, 554, 555, 556, 570, 571, 572, 582, 585, 592, 593, 602, 603, 604, 605, 606, 617, 618, 620, 624, 626, 627, 630, 631, 632, 633, 634, 638, 639, 640, 646, 653, 666, 668, 672, 673, 676, 677, 679, 681, 682, 686, 687, 690, 700, 701, 703, 705, 708]]

Distance to [BI,IE,PR,PC] = 53915

Fagin 3:=[[170], [2, 3, 7, 55, 56, 88, 328], [417, 536], [1, 4, 5, 6, 158, 253], [84, 273, 556, 632], [191], [20, 69, 80, 111, 112, 145, 184, 236, 369, 705, 708], [8, 190, 219, 455], [15, 21, 25, 300, 411, 424, 483, 554, 571], [26, 48, 52, 61, 77, 83, 90, 91, 93], [105, 108, 117, 118, 197, 302], [331], [332, 333], [335, 360, 367, 409, 427, 436, 447, 448], [453, 462, 470, 473, 474, 476, 492, 551, 617], [18, 23, 24, 29, 34, 294, 624, 627, 634, 646, 666, 672, 676, 677, 679, 682, 701], [35, 40, 53, 59, 67, 71], [76, 79, 81, 86, 96, 104, 110, 147,

154, 156, 157, 173, 176], [177, 178, 196, 199, 202, 214, 215, 216, 217, 218, 232, 269, 295, 298, 317, 318, 319, 320, 321], [334, 343, 345, 359, 364, 374, 379, 380], [382, 413, 416, 418, 435], [440, 454, 477, 484, 486, 491, 493, 494, 528, 529, 535, 537], [538, 544, 545, 570, 572, 582], [585, 592, 602, 603, 604, 605, 606, 620, 626, 630, 633, 638, 639, 640, 653, 668, 681, 686, 687], [54, 89, 172, 180, 200, 703], [19, 37, 99, 121, 166, 316, 347, 349, 408, 593, 618, 673, 700], [187, 193, 195, 313], [106, 322, 513, 555, 631, 690], [163, 164, 516, 522]]

Distance to [BI,IE,PR,PC] = 48734