Table I. Studies included, study type, markers investigated, subjects included, results

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| **First author, year,**  **reference number** | **Study type** | **Totalno. mk** | **No. of subjects** | **Results** |
| 1. Lembo et al., 2009, [14] | Prospective, case-control | 10 | 1721 (876 IBS, 398 IBD, 155 FGID, 57 CD, 235 healthy sb.) | Se=50%, Sp=88%, PPV=81%, NPV=64% IBS prevalence 50% |
| 2. Jones et al., 2014, [33] | Prospective, case-control | 34 | 244 (168 IBS, 76 matched controls)  all the 34 markers, 25 sb. - 28 markers, 25 sb. - 24 markers | Se=81 %, Sp=64 % |
| 3. Kindt et al., 2009, [34] | Prospective, case-control | 7 | 100 (32 healthy, volunteers, 68 FGID - 30 IBS) | Se, Sp not shown |
| 4. Schmulson et al., 2012, [35] | Prospective, case-control | 2 | 178 volunteers (randomized 62 IBS, 116 controls) | Se, Sp not shown |
| 5. Liebregts et al., 2007, [36] | Prospective, case-control | 6 | 91 (55 IBS, 36 healthy controls) | Se, Sp not shown |
| 6. Buckley et al., 2014, [37] | Prospective, interventional | 2 | Humans 12 (IBS- 6, healthy volunteers 6) and animals (rats) – 36 | Se, Sp not shown  Student’s t-tests |
| 7. Chang et al., 2012, [38] | Prospective, case-control | 24 | 85 (45 IBS, 41 healthy controls) | Se, Sp not shown |
| 8. Darkoh et al.,  2014, [39] | Prospective, case-control | 18 | 100 (60 IBS, 40 healthy volunteers) | Se, Sp not shown |
| 9. Rana et al.,  2012, [27] | Prospective, case-control | 3 | 1. 125 (63 IBS-D, 62 healthy sb.) 45 pts were exclude out of the 108 screened | Se, Sp not shown |
| 10. Semnani et al.,  2009, [40] | Prospective, case-control | 1 | 160 (80 IBS, 80 healthy sb.) | Se, Sp not shown |
| 11. Mckernan et al.,  2011, [41] | Prospective, case-control | 15 | 60 (30 IBS, 30 healthy controls) | Se, Sp not shown  Student’s t-test (two-tailed) |
| 12. Dinan et al.,  2006, [42] | Prospective, case-control | 6 | 151 (76 IBS, 75 controls; of which 49 IBS and 48 controls Cytokine were determined) | Se, Sp not shown  Student’s t-test (two-tailed) |
| 13. Hauser et al., 2014, [43] | Prospective, pilot | 2 | 86 (IBS) | Se, Sp not shown |
| 14. Pimentel et al., 2015, [44] | Prospective, case-control | 2 | 2681 (2375 IBS-D, 43 healthy sb., 121 CD, 142 IBD) | Se, Sp not shown |