

## Publications relating directly to the Sensabues exhaled breath collection device, system, and method – ExaBreath (EB)

59	2021 Nov (USA) + A comprehensive breath test that confirms recent use of inhaled cannabis within the impairment window. <a href="https://www.nature.com/articles/s41598-021-02137-x">https://www.nature.com/articles/s41598-021-02137-x</a> (Open access paper)
58	2021 July (Germany) + SARS-CoV-2: Viral Loads of exhaled breath and oronasopharyngeal specimens in hospitalized patients with COVID-19 <a href="https://pubmed.ncbi.nlm.nih.gov/34242768/">https://pubmed.ncbi.nlm.nih.gov/34242768/</a> (Open access paper)
57	2021 July (USA) - Biomarkers of Recent Cannabis Use in Blood, Oral Fluid and Breath. <a href="https://pubmed.ncbi.nlm.nih.gov/34185831/">https://pubmed.ncbi.nlm.nih.gov/34185831/</a>
56	2021 June (Germany) + Identification of biomarkers specific to five different nicotine product user groups: Study protocol of a controlled clinical trial. (Note – In this paper the Sensabues EB method is referred to as EBC) <a href="https://pubmed.ncbi.nlm.nih.gov/34189337/">https://pubmed.ncbi.nlm.nih.gov/34189337/</a> (Open access paper)
55	2021 March (China/Singapore) + Online real-time monitoring of exhaled breath particles reveals unnoticed transport of non-volatile drugs from blood to breath. <a href="https://pubmed.ncbi.nlm.nih.gov/33724781/">https://pubmed.ncbi.nlm.nih.gov/33724781/</a> (Open access paper)
54	2021 March (Canada) + Observational study of visual testing efficacy in detecting cannabis usage. <a href="https://journalcswb.ca/index.php/cswb/article/view/176">https://journalcswb.ca/index.php/cswb/article/view/176</a> (Open access paper)
53	2021 Feb. (Sweden) - Peanuts in the air - clinical and experimental studies. <a href="https://pubmed.ncbi.nlm.nih.gov/33548082/">https://pubmed.ncbi.nlm.nih.gov/33548082/</a>
52	2020 Dec. (France) - Characterization of cannabidiol in alternative biological specimens and urine, after consumption of an oral capsule. <a href="https://pubmed.ncbi.nlm.nih.gov/33330903/">https://pubmed.ncbi.nlm.nih.gov/33330903/</a>
51	2020 Aug. (Germany) + Probing for the presence of doping agents in exhaled breath using chromatographic/mass spectrometric approaches. <a href="https://pubmed.ncbi.nlm.nih.gov/32881194/">https://pubmed.ncbi.nlm.nih.gov/32881194/</a> (Open access paper)
50	2020 Feb. (Canada) + Evaluation of breath and plasma tetrahydrocannabinol concentration trends post-cannabis exposure in medical cannabis patients. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7173673/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7173673/</a> (Open access paper)
49	2019 Oct. (Sweden) + Pharmacokinetics of methylphenidate and ritalinic acid in plasma correlations with exhaled breath and oral fluid in healthy volunteers. <a href="https://www.ncbi.nlm.nih.gov/pubmed/31786618">https://www.ncbi.nlm.nih.gov/pubmed/31786618</a> (Open access paper)
48	2019 Sept. (USA) + Validation of a liquid chromatography tandem mass spectrometry (LC-MS/MS) method to detect cannabinoids in whole blood and breath. <a href="https://pubmed.ncbi.nlm.nih.gov/31527291/">https://pubmed.ncbi.nlm.nih.gov/31527291/</a> (Open access paper)
47	2019 Aug. (USA) + Investigating oral fluid and exhaled breath as alternative matrices for anti-doping testing: Analysis of 521 matched samples. <a href="https://www.ncbi.nlm.nih.gov/pubmed/31430626">https://www.ncbi.nlm.nih.gov/pubmed/31430626</a>
46	2019 June (Belgium) + Measuring antibiotics in exhaled air in critically ill, non-ventilated patients: A feasibility and proof of concept study. <a href="https://pubmed.ncbi.nlm.nih.gov/30745285/">https://pubmed.ncbi.nlm.nih.gov/30745285/</a>

45	2019 April (Sweden) + First evaluation of the possibility of testing for drugged driving using exhaled breath sampling. <a href="https://www.ncbi.nlm.nih.gov/pubmed/31039047">https://www.ncbi.nlm.nih.gov/pubmed/31039047</a> (Open access paper)
44	2019 March (Germany) + Does oral fluid contribute to exhaled breath samples collected by means of an electret membrane? <a href="https://onlinelibrary.wiley.com/doi/full/10.1002/dta.2597">https://onlinelibrary.wiley.com/doi/full/10.1002/dta.2597</a> (Open access paper)
43	2018 Sept. (USA EPA) + Evolution of clinical and environmental health applications of exhaled breath research: Review of methods and instrumentation for gas-phase, condensate, and aerosols. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29776545">https://www.ncbi.nlm.nih.gov/pubmed/29776545</a> (Open access paper)
42	2018 April (France) + Evaluation of a new method for the collection and measurement of 8-isoprostane in exhaled breath for future application in nanoparticle exposure biomonitoring. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29651988">https://www.ncbi.nlm.nih.gov/pubmed/29651988</a>
41	2018 March (Sweden) + Drug abuse screening with exhaled breath and oral fluid in adults with substance use disorder. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29575801">https://www.ncbi.nlm.nih.gov/pubmed/29575801</a>
40	2018 Jan. (USA, Russia) + Non-invasive lung disease diagnostics from exhaled microdroplets of lung fluid: perspectives and technical challenges <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7099678/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7099678/</a> (Open access paper)
39	2018 Jan. (Sweden) + A liquid chromatography and tandem mass spectrometry method to determine 28 non-volatile drugs of abuse in exhaled breath. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29059614">https://www.ncbi.nlm.nih.gov/pubmed/29059614</a>
38	2017 Dec. (Belgium) + Quantitation of Antibiotics in Exhaled breath: a pilot study (ANTIBEX-trial). <a href="https://biblio.ugent.be/publication/8646623/file/8646628">https://biblio.ugent.be/publication/8646623/file/8646628</a> <a href="https://biblio.ugent.be/publication/8608328/file/8618927">https://biblio.ugent.be/publication/8608328/file/8618927</a>
37	2017 Dec. (Sweden) + Two techniques to sample non-volatiles in breath—exemplified by methadone. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29220343">https://www.ncbi.nlm.nih.gov/pubmed/29220343</a> <a href="http://www.iopscience.iop.org/article/10.1088/1752-7163/aa8b25/pdf">http://www.iopscience.iop.org/article/10.1088/1752-7163/aa8b25/pdf</a> (Open access paper)
36	2017 June (USA) - Achievements and challenges in anti-doping research. <a href="https://www.ncbi.nlm.nih.gov/pubmed/28571018">https://www.ncbi.nlm.nih.gov/pubmed/28571018</a>
35	2017 May (Germany) + Expanding analytical options in sports drug testing: mass spectrometric detection of prohibited substances in exhaled breath. <a href="http://onlinelibrary.wiley.com/doi/10.1002/rcm.7903/epdf">http://onlinelibrary.wiley.com/doi/10.1002/rcm.7903/epdf</a> (Open access paper)
34	2016 Nov (Sweden) + Exhaled particles for monitoring of airway inflammation. (See Section 1.4.1 in thesis) <a href="https://gupea.ub.gu.se/handle/2077/44869">https://gupea.ub.gu.se/handle/2077/44869</a>
33	2016 Oct. (Germany) + Sports drug testing using complementary matrices: Advantages and limitations. <a href="https://www.ncbi.nlm.nih.gov/pubmed/27040951">https://www.ncbi.nlm.nih.gov/pubmed/27040951</a>
32	2016 Oct. (France) + Characterization of metizolam, a designer benzodiazepine, in alternative biological specimens. <a href="https://www.sciencedirect.com/science/article/pii/S2352007816302050">https://www.sciencedirect.com/science/article/pii/S2352007816302050</a>
31	2016 July (France) + Detection of $\Delta^9$ -Tetrahydrocannabinol in exhaled breath after cannabis smoking and comparison with oral fluid. <a href="https://link.springer.com/article/10.1007/s11419-016-0333-x">https://link.springer.com/article/10.1007/s11419-016-0333-x</a>

30	2016 June (Belgium) + $\Delta^9$ -Tetrahydrocannabinol concentrations in exhaled breath and physiological effects following cannabis intake - a pilot study using illicit cannabis. <a href="https://www.ncbi.nlm.nih.gov/pubmed/27288550">https://www.ncbi.nlm.nih.gov/pubmed/27288550</a>
29	2016 June (France) + Testing for methadone and EDDP in exhaled breath collected with ExaBreath: Comparison with oral fluid and urine. <a href="http://www.sciencedirect.com/science/article/pii/S2352007816000305">http://www.sciencedirect.com/science/article/pii/S2352007816000305</a>
28	2016 March (China) + Collecting protein biomarkers in breath using electret filters: A preliminary method on a new technical model and human study. <a href="http://www.ncbi.nlm.nih.gov/pubmed/26934615">http://www.ncbi.nlm.nih.gov/pubmed/26934615</a>
27	2016 March (Sweden) + Characterization of exhaled breath particles collected by an electret filter technique. <a href="http://www.ncbi.nlm.nih.gov/pubmed/26987381">http://www.ncbi.nlm.nih.gov/pubmed/26987381</a>
26	2016 Feb. (France) + Testing for drugs in exhaled breath collected with ExaBreath in a drug dependence population: Comparison with data obtained in urine after LC-MS/MS analyses. <a href="http://www.ncbi.nlm.nih.gov/pubmed/26222873">http://www.ncbi.nlm.nih.gov/pubmed/26222873</a>
25	2016 Jan. (Sweden) + Potential of mass spectrometry in developing clinical laboratory biomarkers of non-volatiles in exhaled breath. <a href="http://www.ncbi.nlm.nih.gov/pubmed/26578691">http://www.ncbi.nlm.nih.gov/pubmed/26578691</a>
24	2015 Nov. (Sweden) + Measurement of lung phosphatidylcholines in exhaled breath particles by a convenient collection procedure. <a href="http://www.ncbi.nlm.nih.gov/pubmed/26505278">http://www.ncbi.nlm.nih.gov/pubmed/26505278</a>
23	2015 Dec. (Sweden) + First report on the pharmacokinetics of tramadol and O-desmethyltramadol in exhaled breath compared to plasma and oral fluid after a single oral dose. <a href="http://www.ncbi.nlm.nih.gov/pubmed/26388171">http://www.ncbi.nlm.nih.gov/pubmed/26388171</a> <a href="http://www.karolinska.se/contentassets/d5474c5480ca47778a14656b2f0926c1/tramadol-pharmacokinetics-in-exhaled-breath-oral-fluid-and-plasma.pdf">http://www.karolinska.se/contentassets/d5474c5480ca47778a14656b2f0926c1/tramadol-pharmacokinetics-in-exhaled-breath-oral-fluid-and-plasma.pdf</a>
22	2015 Sept. (Sweden) - Study on the origin and collection of exogenous compounds in exhaled breath aerosol particles. Abstract only. <a href="http://eri.ersjournals.com/content/46/suppl_59/PA2095">http://eri.ersjournals.com/content/46/suppl_59/PA2095</a>
21	2015 May (Sweden) + Phosphatidylethanol in breath: a possible non-invasive screening test for heavy alcohol consumption. <a href="http://clinchem.aaccjnls.org/content/61/7/991">http://clinchem.aaccjnls.org/content/61/7/991</a> <a href="http://clinchem.aaccjnls.org/content/clinchem/61/7/991.full.pdf">http://clinchem.aaccjnls.org/content/clinchem/61/7/991.full.pdf</a>
20	2015 April (Sweden) + Application of drug testing using exhaled breath for compliance monitoring of drug addicts in treatment. <a href="http://www.ncbi.nlm.nih.gov/pubmed/25562730">http://www.ncbi.nlm.nih.gov/pubmed/25562730</a>
19	2015 March (Sweden) + Method validation and application of a liquid chromatography-tandem mass spectrometry method for drugs of abuse testing in exhaled breath. <a href="http://www.ncbi.nlm.nih.gov/pubmed/25687804">http://www.ncbi.nlm.nih.gov/pubmed/25687804</a> <a href="http://www.cannabiskunksense.co.uk/uploads/site-files/1-s2.0-S1570023215000720-main.pdf">http://www.cannabiskunksense.co.uk/uploads/site-files/1-s2.0-S1570023215000720-main.pdf</a> <a href="https://www.elsevier.com/about/press-releases/research-and-journals/researchers-develop-first-validated-method-of-detecting-drugs-of-abuse-in-exhaled-breath">https://www.elsevier.com/about/press-releases/research-and-journals/researchers-develop-first-validated-method-of-detecting-drugs-of-abuse-in-exhaled-breath</a>
18	2015 Jan. (Sweden) + Clinical trial of a new technique for drugs of abuse testing: A new possible sampling technique. <a href="http://www.ncbi.nlm.nih.gov/pubmed/25312474">http://www.ncbi.nlm.nih.gov/pubmed/25312474</a>
17	2014 Aug. (USA NIDA) + Quantification of cocaine and metabolites in exhaled breath by liquid

	chromatography-high-resolution mass spec following controlled administration of intravenous cocaine. <a href="http://www.ncbi.nlm.nih.gov/pubmed/25129634">http://www.ncbi.nlm.nih.gov/pubmed/25129634</a>
16	2014 Aug. (Sweden) - Determination of amphetamine and methylphenidate in exhaled breath of patients ADHD treatment. <a href="http://www.ncbi.nlm.nih.gov/pubmed/24452069">http://www.ncbi.nlm.nih.gov/pubmed/24452069</a>
15	2014 June (Belgium) + $\Delta^9$ -Tetrahydrocannabinol concentrations in exhaled breath related to physiological effects following cannabis smoking. <a href="http://www.sciencedirect.com/science/article/pii/S235200781470037X">http://www.sciencedirect.com/science/article/pii/S235200781470037X</a>
14	2014 May (USA NIDA) + NIDA Notes. <a href="https://www.drugabuse.gov/news-events/nida-notes/2014/05/device-detects-marijuana-in-breath-hours-after-smoking">https://www.drugabuse.gov/news-events/nida-notes/2014/05/device-detects-marijuana-in-breath-hours-after-smoking</a>
13	2014 Jan. (Sweden) + Exhaled breath for drugs of abuse testing - evaluation in criminal justice settings. <a href="http://www.ncbi.nlm.nih.gov/pubmed/24438778">http://www.ncbi.nlm.nih.gov/pubmed/24438778</a>
12	2013 Dec. (USA NIDA) + Cannabinoids in exhaled breath following controlled administration of smoked cannabis. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4537523/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4537523/</a> <a href="http://clinchem.aaccjnls.org/content/60/9/1235">http://clinchem.aaccjnls.org/content/60/9/1235</a> <a href="http://clinchem.aaccjnls.org/content/60/9/1236">http://clinchem.aaccjnls.org/content/60/9/1236</a>
11	2013 April (Sweden) + Detection of drugs of abuse in exhaled breath using a device for rapid collection: comparison with plasma, urine and self-reporting in 47 drug users. <a href="http://www.alna.se/sites/default/files/journal_of_breath_research_2013.pdf">http://www.alna.se/sites/default/files/journal_of_breath_research_2013.pdf</a> <a href="https://www.ncbi.nlm.nih.gov/pubmed/23619392">https://www.ncbi.nlm.nih.gov/pubmed/23619392</a>
10	2012 Dec. (Sweden) + Detection of drugs of abuse in exhaled breath from users following recovery from intoxication. <a href="http://jat.oxfordjournals.org/content/36/9/638.full.pdf">http://jat.oxfordjournals.org/content/36/9/638.full.pdf</a>
9	2011 Dec. (Sweden) - Demonstration that methadone is being present in the exhaled breath aerosol fraction. <a href="http://www.ncbi.nlm.nih.gov/pubmed/21873017">http://www.ncbi.nlm.nih.gov/pubmed/21873017</a>
8	2011 June (Sweden) + Study on the sampling of methadone from exhaled breath. <a href="https://academic.oup.com/jat/article-pdf/35/5/257/2441655/35-5-257.pdf">https://academic.oup.com/jat/article-pdf/35/5/257/2441655/35-5-257.pdf</a>
7	2011 April (Sweden) + Determination of methadone in exhaled breath condensate by liquid chromatography-tandem mass spectrometry. <a href="https://academic.oup.com/jat/article-pdf/35/3/129/2293790/35-3-129.pdf">https://academic.oup.com/jat/article-pdf/35/3/129/2293790/35-3-129.pdf</a>
6	2011 Oct. (Sweden) + Detection of THC in exhaled breath collected from cannabis users. <a href="https://academic.oup.com/jat/article-pdf/35/8/541/2615713/35-8-541.pdf">https://academic.oup.com/jat/article-pdf/35/8/541/2615713/35-8-541.pdf</a>
5	2010 July (Sweden) - Method for determination of methadone in exhaled breath collected from subjects undergoing methadone maintenance treatment. <a href="http://www.ncbi.nlm.nih.gov/pubmed/20638346">http://www.ncbi.nlm.nih.gov/pubmed/20638346</a>
4	2010 June (Sweden) - Amphetamines detected in exhaled breath from drug addicts: A new possible method for drugs-of-abuse testing. <a href="http://www.ncbi.nlm.nih.gov/pubmed/20529456">http://www.ncbi.nlm.nih.gov/pubmed/20529456</a>
3	2010 May - Characterization of exhaled particles from the healthy human lung - a systematic analysis in relation to pulmonary function variables. <a href="https://www.ncbi.nlm.nih.gov/pubmed/20500095">https://www.ncbi.nlm.nih.gov/pubmed/20500095</a>
2	2010 March - Effect of airway opening on production of exhaled particles. <a href="https://www.ncbi.nlm.nih.gov/pubmed/20056850">https://www.ncbi.nlm.nih.gov/pubmed/20056850</a>

1	2009 Sept. - The mechanism of breath aerosol formation. <a href="https://www.ncbi.nlm.nih.gov/pubmed/19415984">https://www.ncbi.nlm.nih.gov/pubmed/19415984</a>