

BIO-ON HAS ALWAYS ACTIVELY COLLABORATED WITH NUMEROUS ITALIAN AND FOREIGN UNIVERSITIES AND RESEARCH CENTRES, FUNDING RESEARCHERS AND UNIVERSITIES. AMONG THE MOST IMPORTANT WE HIGHLIGHT THE FOLLOWING:

Research and development expenses commissioned from university bodies and from Italian and foreign researchers, increased during financial year 2016 in light of developments in research into the applicability of Bio-On's PHA. Over the last 3 financial years, **€3,487,486.00 was invested (from 2016 to 2018). Overall, from 2008 to 2018, about €10 million was invested in research and development.**

1_ NATIONAL INTERUNIVERSITY CONSORTIUM FOR MATERIALS SCIENCE AND TECHNOLOGY — RESEARCH ON TREATMENT OF BY-PRODUCT SUBSTRATES (LEVULINIC ACID) — 12 MONTHS

2_ NATIONAL INTERUNIVERSITY CONSORTIUM FOR MATERIALS SCIENCE AND TECHNOLOGY — RESEARCH SUBCONTRACT (SEAFRONT) EXPIRY 30 JUNE 2017 — UNIVERSITY OF BOLOGNA RESEARCH CONTRACT (R&D) — 12 MONTHS

3_ UNIVERSITY OF BOLOGNA 2015 CONSULTANCY CONTRACT (50% MAGNA) — 12 MONTHS

4_ UNIVERSITY OF BOLOGNA 2015 CONSULTANCY CONTRACT (50% CURRENT RESEARCH EXPENSES) — 12 MONTHS

5_ UNIMORE 2015 RESEARCH CONTRACT — 6 MONTHS

6_ TAMPERE UNIVERSITY OF TECHNOLOGY (FINLAND) 2015 RESEARCH CONTRACT (EXTRUDER) — 12 MONTHS

7_ JURKA KUUSIPALO (FINLAND) 2015 RESEARCH CONTRACT — 12 MONTHS

8_ UNIVERSITY OF BOLOGNA 2015 RESEARCH SCHOLARSHIP EXPIRY 31 OCTOBER 2018

9_ NATIONAL INTERUNIVERSITY CONSORTIUM FOR MATERIALS SCIENCE AND TECHNOLOGY 2015 RESEARCH CONTRACT "APPLICATION OF POLYHYDROXYALKANOATES FOR RESTORATION" — 12 MONTHS

10_ PHA BIOPLASTIC FROM BIOMASS UH (UNIVERSITY OF HAWAII, USA) 2015 RESEARCH CONTRACT — 5 YEARS 2020

11_ UNIVERSITY OF SALERNO 2016 RESEARCH ACTIVITY AGREEMENT — 11 MONTHS
UNIMORE 2016 RESEARCH CONTRACT — 1 MONTH

12_ NATIONAL INTERUNIVERSITY CONSORTIUM FOR MATERIALS SCIENCE AND TECHNOLOGY 2016 RESEARCH CONTRACT NANOFORMULATION COMESI — 12 MONTHS

- 13_ JURKKA (FINLAND) 2016 — 10 MONTHS EXPIRY 2017
- 14_ TAMPERE UNIVERSITY OF TECHNOLOGY 2016 RESEARCH CONTRACT — 10 MONTHS EXPIRY 2017
- 15_ UNIVERSITY OF BOLOGNA 2016 RESEARCH CONTRACT ON THE APPLICABILITY OF GREEN PLASTIC TO THE BIOMEDICAL FIELD — 12 MONTHS
- 16_ UNIVERSITY OF BOLOGNA 2016 CONSULTANCY CONTRACT — 12 MONTHS
- 17_ IAMC/CNR MESSINA 2016 RESEARCH CONTRACT BIOREMEDIATION — 12 MONTHS
- 18_ IOR 2016 INDUSTRIAL RESEARCH — 12 MONTHS
- 19_ UNIMORE 2016 RESEARCH/CONSULTANCY 2016 INVENTOR — 14 MONTHS
- 20_ UNIMORE RESEARCH GRANT 2016 RESEARCH ON THE INTERACTION BETWEEN BIOMATERIALS AND BACTERIA — 12 MONTHS
- 21_ UNIVERSITY OF MILAN RESEARCH CONTRACT 2016 RESEARCH: DEVELOPMENT OF BIODEGRADABLE ELECTROACTIVE ACTUATORS BASED ON POLYHYDROXYALKANOATES — 12 MONTHS
- 22_ UNIVERSITY OF BOLOGNA NANOFORMULATION OF PIEZOELECTRIC AND CONDUCTIVE NANOPARTICLES WITH POLYHYDROXYALKANOATES FOR APPLICATIONS IN SOFT ROBOTICS 2016 RESEARCH SCHOLARSHIP — 12 MONTHS
- 23_ UNIVERSITY OF MILAN ADDENDUM TO THE RESEARCH CONTRACT WITH THE UNIVERSITY OF MILAN 2016 RESEARCH CONTRACT — FORMULATION OF ELECTRICALLY CONDUCTIVE INKS — 9 MONTHS
- 24_ CONSORZIO FUTURO IN RICERCA 2016 RESEARCH CONTRACT “EVALUATION OF MICROBIOLOGICAL STABILITY” — 12 MONTHS
- 25_ CONSORZIO FUTURO IN RICERCA 2016 RESEARCH CONTRACT TO INCREASE PHA SOLUBILITY IN ORGANIC OR MIXED AQUEOUS SOLVENTS. LINKED TO SEAFRONT — 12 MONTHS
- 26_ FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA GENOA. PROF. CINGOLANI 2016 RESEARCH CONTRACT — 12 MONTHS
- 27_ FONDAZIONE ADRIANO BUZZATI-TRAVERSO — MARIO CHIARIELLO 2017 RESEARCH ON THERAPIES FOR BRAIN TUMOURS — 12 MONTHS
- 28_ DEPARTMENT OF CLINICAL AND BIOLOGICAL SCIENCES, UNIVERSITY OF TURIN 2017 RESEARCH ON THE USE OF PHA CONDUITS FOR PERIPHERAL NERVE RECONSTRUCTION — 24 MONTHS

- 29_ On 27/03/2017 INSTITUTE OF CLINICAL PHYSIOLOGY CNR IFC DEVELOPMENT OF PROCEDURES BASED ON BIOIMAGING FOR THE NON-INVASIVE STUDY OF THERMOGELS PRODUCED BY BIO-ON
- 30_ On 03/04/2017 SOFT MATERIAL TECHNOLOGIES RESEARCH ANALYSIS OF TECHNOLOGICAL SOLUTIONS EXPLOITING THE PIEZOELECTRIC PROPERTIES OF POLYMERS
- 31_ On 10/04/2017 UNIMORE RESEARCH, DEVELOPMENT OF FORMULATIONS AND PRODUCTS BASED ON POLYHYDROXYALKANOATES OBTAINED FROM RENEWABLE SOURCES
- 32_ On 03/04/2017 UNIVERSITY OF OVIEDO RESEARCH ON PREVENTION OF COLORECTAL CANCER USING PHA
- 33_ On 12/04/2017 UNIVERSITY OF TRENTO IMPACT TESTS
- 34_ On 09/05/2017 SIDEL ENGINEERING ASSISTANCE ON WORKERS' HEALTH AND SAFETY
- 35_ On 12/05/2017 UNIMORE PRE-FEASIBILITY RESEARCH
- 36_ On 30/06/2017 UNIVERSITY OF BOLOGNA. DEPARTMENT OF INDUSTRIAL CHEMISTRY TOSO MONTANARI SCHOLARSHIP ON FORMULATIONS OF COSMETIC EXCIPIENTS AND GELLING AGENTS INSIDE POLYHYDROXYALKANOATE MICROCAPSULES FOR COSMETIC APPLICATION
- 37_ On 12/06/2017 UNIVERSITY OF OVIEDO IN VITRO DIGESTION MODEL OF POLYHYDROXYBUTYRATE POLYMER
- 38_ On 26/07/2017 SICON OIL & GAS
- 39_ On 14/09/2017 UNIMORE SCHOLARSHIP. RESEARCH "INTERACTION BETWEEN BIOMATERIALS AND BACTERIA"
- 40_ On 26/09/2017 UNIVERSITY OF OVIEDO RESEARCH ON THE EFFECT OF PHB ON COLON CANCER
- 41_ On 28/09/2017 CENTRO STUDI S. ANTONINO ORGANISATIONAL, MANAGEMENT AND PROCEDURAL DEVELOPMENT PLAN
- 42_ On 22/10/2017 ASSISTANCE WITH REVIEW OF COMPANY PROCESS DOCUMENTATION
- 43_ On 25/10/2017 UNIVERSITY OF NAPLES DEPARTMENT OF BIOLOGY. RESEARCH ON THE EFFECT OF PHB ON OXIDATIVE STRESS, INFLAMMATION ... IN A RAT MODEL OF OBESITY AND INSULIN RESISTANCE
- 44_ From 1/2/18 to 30/9/18 UNIVERSITY OF MILAN DEVELOPMENT OF SOLID ELECTROLYTES BASED ON POLYHYDROXYALKANOATES TO PRODUCE FLEXIBLE AND BIODEGRADABLE ENERGY DEVICES

45_ On 01/02/2018 NATIONAL INTERUNIVERSITY CONSORTIUM FOR MATERIALS SCIENCE AND TECHNOLOGY RESEARCH: MORPHOLOGICAL AND COMPOSITIONAL ANALYSIS OF MICROCAPSULES

46_ On 23/03/2018 UNIVERSITY OF OVIEDO — COMES RESEARCH: ACUTE POLYHYDROXYBUTYRATE DOSAGE

47_ On 10/04/2018 FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA GENOA. PROF. CINGOLANI ADDENDUM TO THE RESEARCH CONTRACT OF 31/12/16

48_ On 03/04/2018 CNR IAMC PROFESSIONAL COLLABORATION OPTIMISATION OF PROCESSES FOR MICROBIAL PHA METABOLITES FROM PLANT SOURCES FOR RECOVERY OF SOILS AFFECTED BY HYDROCARBON CONTAMINATION

49_ On 26/04/2018 SOFT MATERIAL TECHNOLOGIES TECHNICAL-SCIENTIFIC CONSULTANCY AND ASSISTANCE EXPERIMENTAL ANALYSIS OF OPTICAL PROPERTIES AND FEASIBILITY ASSESSMENT OF COMPONENTS BASED ON BULK AND FIBRES IN PHB

50_ On 26/04/2018 SOFT MATERIAL TECHNOLOGIES CONSULTANCY AND ASSISTANCE

51_ On 09/05/2017 SIDEL ENGINEERING ASSISTANCE ON WORKERS' HEALTH AND SAFETY

52_ On 26/09/2017 UNIVERSITY OF OVIEDO RESEARCH ON THE EFFECT OF PHB ON COLON CANCER

53_ On 22/10/2017 ASSISTANCE WITH REVIEW OF COMPANY PROCESS DOCUMENTATION

54_ On 10/04/2018 FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA GENOA. PROF. CINGOLANI ADDENDUM TO THE RESEARCH CONTRACT OF 31/12/16

55_ On 18/07/2018 CONSORZIO ITALBIOTEC SCIENTIFIC CONSULTANCY ON TOOTHPASTE FORMULATIONS

56_ On 03/07/2018 METHODOLOGICAL SUPPORT INDUSTRIAL ACCOUNTING EVOLUTION OF THE FINANCE FUNCTION

57_ On 15/10/2018 CONSULTANCY SUPPORT ON TOBACCO AMT LABS

58_ On 01/10/2018 UNIVERSITY OF MILAN. CNS FOODNUTRACEUTICA STUDY OF THE EFFECT OF BETA-HYDROXYBUTYRATE ON NERVOUS SYSTEM FUNCTION

59_ On 29/10/2018 RESEARCH AGREEMENT CLARKSON UNIVERSITY RESEARCH FOR HYDROGEN DETECTION

60_ On 14/11/2018 UNIVERSITY OF MILAN. CNS ELOXEL DEVELOPMENT AND PROTOTYPING OF FLEXIBLE AND BIODEGRADABLE ENERGY DEVICES BASED ON POLYHYDROXYALKANOATES

61_ On 12/11/2018 CONSORZIO FUTURO IN RICERCA. STUDY OF LEVULINIC ACID PRODUCTION PROCESSES

62_ On 08/02/2019 FONDAZIONE ADRIANO BUZZATI CHIARIELLO ADDENDUM THERAPIES FOR THE TREATMENT OF BRAIN TUMOURS WITH THERMOGEL

63_ On 29/10/2018 CLARKSON UNIVERSITY Tobacco

64_ On 04/03/2019 CONTRACT ITACA INNOVATION SRL PIEZOELECTRIC FOOT PROJECT

65_ On 01/12/2018 INSTM INSTRUMENTAL CHARACTERISATION ANALYSES ON PHA BIOPOLYMERS

66_ On 08/04/2019 CONSORZIO ITALBIOTEC ADDENDUM TO THE CONTRACT OF THE 18TH. DETERMINATION OF THE EFFICACY OF CHEWING GUM AGAINST ORAL CAVITY MICROORGANISMS

67_ On 08/04/2019 INSTITUTE FOR BIOENGINEERING OF CATALONIA IBEC ELISABETH LOPEZ EVALUATION OF THE BIOLOGICAL POTENTIAL OF PHB ON IN VIVO MODELS, FOR MEDICAL APPLICATIONS; TO TEST WOUND-HEALING CAPACITY; ANGIOGENIC CAPACITY; TO TEST THE ABILITY OF CELLS TO COLONISE THE SCAFFOLD. CAPACITY TO REGENERATE HUMAN TISSUES.

68_ 04/2019 UNIVERSITY OF NAPLES ADDENDUM EVALUATION OF THE EFFECTS OF PHB ON BODY-WEIGHT CONTROL

69_ On 06/05/2019 UNIVERSITY OF TURIN GEUNA USE OF PHA CONDUITS FOR PERIPHERAL NERVE RECONSTRUCTION

Since 2014 the company's great success has been the sum of a long series of internal and external excellences that I led unceasingly from the foundation until the day the Bologna Prosecutor's Office decided to stop me, listening to a so-called speculative fund supported by a technical consultant in a conflict of interest because he was a partner and "fan" of a historic company producing compostable biopolymers. The research and the investments in support of scientists gave rise to a series of patents useful to humanity. All of this was interrupted by the Bologna Prosecutor's Office in a few months, siding with a speculator whose accusations have already all been shown to be unfounded. Was it worth it?