

LISTING OF ACTIVE PNNL CRADAS as of 11/02/06

- 175 Dye Seed Ranch, Inc.
IPP – 5/18/01
30399 – PLA 1 PLA 1 – “Development of Microbiological Methods for Oil Pollution Decontamination in Soil and n on Water Surface”; Contributions: PNNL = \$695,000. Dye Seed Ranch = \$695,000 [Evguenia Rainina]
- 176 New Horizons Diagnostics Corp.
IPP – 12/19/00
32206 – PLA 3
41298 – PLA 4
51073 – PLA 5 PLA 3 (signed 4/25/01) – “Antibody-Based Diagnostics-Fast Track Production”; Contributions: PNNL = \$600,000, NHD = \$600,000 [D Weller] **Amended 3/14/05**
PLA 4 (signed 3/14/05) 41298 – “Use of Micelles to Protect Bioactives”; Contributions: PNNL = \$500K Phase I and \$418K Phase II, NHD = \$500K Phase I and \$550K Phase II [E Rainina]
PLA 5 (signed 6/22/06) – “Antibody-Based Diagnostics and Production for High Consequence Animal Pathogens”; Contributions: PNNL = \$545K Phase I and \$445K Phase II; NHD = \$545K Phase I \$465K Phase II [D Weller]
- 207 AlphaMed
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08-22-02
Amended 4-29-03
Amended 5-18-04
Amend. #3 11-9-05
44317 “Processing U-232 to Produce RA-224/Bi-212 Generators”
Contributions: PNNL = \$0, AlphaMed \$65,000 in-kind and \$49,800 funds-in [Darrell Fisher and Dennis Wester] CRADA term is 56 months **[April 22, 2007]**
- 213 Cummins Incorporated
02-12-03
43315
Amended “Mechanisms of Sulfur Poisoning of Nox Adsorber Materials”
Contributions: PNNL = \$1,000,000; Cummins = \$1,000,000 – 60 months [George Muntean, Suresh Baskaran, Chuck Peden, Jud Virden] **End date February 12, 2008**
- 217 Cargill
44246A
12/2/03
Amended 12/04/06 “A New Biorefinery Platform Intermediate-3-HP”
Contributions: PNNL = \$400K per year for 5 years; Cargill = \$1,157,470 over 5 years [Rick Orth] **End date December 2, 2008**
- 224 National Corn Growers Association
44248
4-2-04 “Separation of Corn Fiber and Conversion to Fuels and Chemicals”
Contributions: PNNL = \$388,000 year 1, \$289,408 year 2, \$126,831 year 3; NCGA = \$114,173 year 1, \$114,172 year 2. and \$126,831 year 3 [Rick Orth] **[End date April 2, 2007]**
- 226 Fuel Cell Energy
42176
9-22-04 “Thermally Integrated High Power Density SOFC Generator”
Contributions: PNNL = \$1,200,000; Fuel Cell Energy = \$8,326,318 [Prabhakar Singh] [32 months] **[End date Sept. 30, 2008]**

Amend 1 5/21/07

- 227 Velocys, Inc.
46868
5-3-04
“Technical Assistance in Catalyst Adaptation and Utilization in Microchannel Reactors for Olefins By High Intensity Oxidation”
Contributions: PNNL = \$155,520 FY04, \$140,400 FY05, and \$20,520 FY06; Velocys = \$239,000 FY04, \$215,000 FY05, and \$96,000 FY06 (3 year project) [Yong Wang] **[End date May 3, 2007]**
- 229 Boeing
IPP
PLA 1 – 42852
PLA 2 – 47591
4/28/05 (both PLAs)
PLA 1 - “Developing Lightweight Materials and Manufacturing Methods in the Former Soviet Union for Commercial Superplastic Forming Applications”; Contributions: Boeing = \$400K Phase I and \$540K Phase II, PNNL = \$470K Phase I and \$470K Phase II – [Rich Davies] (3 years) **[4-28-08]**
PLA 2 – “High Performance Structural Materials for Commercial Aerospace Applications”;
Contributions: Boeing = \$500K Phase I and \$500K Phase II, PNNL = \$500K Phase I and \$500K Phase II – [Rich Davies] (3 years) **[4-28-08]**
- 230 Caterpillar
47717
2-14-05
“Advanced Catalytic Oxidation for HCCI Emissions Control”
Contributions: PNNL = \$1,350,000; Caterpillar = \$1,350,000 [3 years]
[Chris Aardahl] **[End date February 14, 2008]**
- 231 Apollo Company
IPP
43404
9-17-04
Amend 1. 9-11-06
PLA 1 – “Nanometal Sensors”; Contributions: PNNL = \$830,000; Apollo = \$880,000
[Brian Opitz] [2 years] **[End date September 30, 2007]**
- 234 ADMA Products, Inc.
IPP
47653
9-17-04
PLA 1 – “Cost-Effective Production of Powder Metallurgy Titanium Components for High-Volume Commercial Applications”; Contributions: PNNL = \$600,000
ADMA = \$600,000 [3 years]
[Rich Davies] **[End date September 17, 2007]**
- 235 AgraQuest, Inc.
IPP
41295 (US)
47149 (RU)
12-22-04
Amend 1 - 1-26-07
PLA 1 – “Bionematocides”; Contributions: PNNL = \$684,000; AgraQuest = \$725,000
[Robert J Fellows] **[End date December 22, 2007]**
- 237 The Dow Chemical Company
48941
5/12/05
“Fuel Efficient Diesel Particulate Filter (DPF) Modeling and Development”
Contributions: PNNL = FY05 - \$200K, FY06 - \$425K, and FY07 - \$425K; Dow = FY05 - \$200K, FY06 - \$425K, and FY07 - \$425K [3 years] **End date May 12, 2008]**
[Tom Gallant]

- 239 Apollo Company
UV Systems
IPP CRADA
43402
11/17/04
“Solar Batteries”: Contributions: PNNL = \$395K Phase I, \$377K Phase II; Apollo = \$370K Phase I, \$352K Phase II; UV Systems = \$25K Phase I, \$25 Phase II
[Brian Optiz] **[End date November 17, 2007]**
- 242 Bailey-Parks Urethane, Inc.
IPP CRADA
47654 (US)
47680 (RU)
8/17/05
“Variable Modulus Polyurethane and Polyisocyanurate Polymers”
Contributions: PNNL = \$450K for Phase I, \$450K for Phase II (Total \$900K); BP = \$305K for Phase I, \$595K for Phase II (Total \$900K)
[Crystal Driver] **[End date August 17, 2008]**
- 243 ANTARES Group Inc.
Eastman Chemical Company
Galleon Engineerg
5/31/05
47294
“Catalytic Hydrothermal Gasification for Eastman’s Chemical Production Plant”
Contributions: PNNL = \$546,000 over 3 years; Antares = \$435,551 over 3 years;
Eastman = \$99,696 over 3 years; and Galleon = \$421,373 over 3 years
[Doug Elliott] **[End date May 31, 2008]**
- 248 Battelle Memorial Institute
IPP CRADA
47419 (US)
47496 (RU)
[REDACTED]
PLA 1 – “Production of Humanized Monoclonal Antibodies Against Bacillus Anthracis and Yersenia pestis for the Urgent Prophylaxis and Therapy of Exposed Individuals
Contributions: PNNL = \$839,000 for three Phases; BMI = \$839,000 for three Phases
[Dick Weller] **[3 years—2/13/2009]**
- 249 Life Time Pharmaceuticals
IPP CRADA
47422 (US)
47497 (RU)
[REDACTED]
PLA 1 – “Fluorinated Analogs of Bioactive Garlic Components”
Contributions: PNNL = \$575K for Phase I, \$343K for Phase II; Life Time = \$575K for Phase I
And \$343K for Phase II **[3 years—10/17/08]**
[Dick Weller and Jim Morris]
- 254 Isonics Corporation
IPP
49477 (US)
49561 (RU)
[REDACTED]
“Development of Effective Decontamination Methods and Technology”
Contributions: PNNL = \$464K for Phase I, \$536K for Phase II; Isonics = \$470K for Phase I and
\$530K for Phase II **[3 years—12/20/08]**
[Evguenia Rainina]
- 255 The Center for Strategic
Alliance
49480 (US)
“Development and Commercialization of Straw Fired Boilers of 100-1000 kW in Ukraine”
Contributions: PNNL = \$470.2K Phase I, \$471.3K Phase II; CSA = \$470.5 Phase I, \$471
Phase II **[24 months – 6/5/08]**

- 49560 (RU)
6/5/06 [Dave Eakin]
- 256 Agilent Technologies
40601 (may be program #)
5/4/06
Amend. 1 – 4/12/07
“Biomarker Discovery Tools Development”
Contributions: PNNL = \$220,000 over 15 months; Agilent = \$444,794 of which \$401,453 is in the Form of equipment over 15 months [8/4/07]
[Dick Smith]
- 257 MeadWestvaco Corporation
51406
8/17/06
“Improved Lignin Purification/Recovery Process for Carbon Fiber Applications”
Contributions: PNNL = \$375K over 15 months; MeadWestvaco = \$275K over 15 months
[Jim White & Todd Werpy] [FreedomCAR funding] [15 months – 11/17/07]
- 258 Ford Motor Company
IPP
50914
11/1/06
“Electrohydraulic Forming of Sheet Metal for Automotive Applications”
Contributions: PNNL = \$900K over 3 years; Ford = \$900K over 3 years
[Rich Davies] [11/1/09]
- 259 UOP &
NREL
6/29/06
43462
“Pyrolysis Oil to Gasoline”
Contributions: PNNL = \$300K over 12 months ; NREL = \$300K over 12 months;
UOP = \$500K over 12 months; [Doug Elliott] [12 months – 6/29/07]
- 260 Moldflow
49465
9/27/06
“Implementation of New Process Models for Tailored Polymer Composite Structures into Processing Software Packages”
Contributions: PNNL = \$452,000 over 3 years; Moldflow = 452,000 over 3 years
[Nghiep BN Nguyen/Mark Smith] [3 year—9/27/09]
- 262 Thorenco LLC
Funds-in
51743
12/06/06
“Medical Isotope Production from Gamma and Neutron Generators”
Contributions: PNNL = \$0 over seven months; Thorenco = \$14,434 funds in (paid in full)
[Darrell Fisher/Richard Wittman] [7 months—7/06/07]
- 263 Fuel Cell Energy
IPP
49556 (US)/49573 (Russian)
12/4/06
“Evaluation of Electron Beam Physical Vapor Deposition (EBPVD) Process for the Fabrication Of Low Cost Solid Oxide Fuel Cell (SOFC) Components”
Contributions: PNNL = \$970K over 24 months; Fuel Cell = \$970K over 24 months
[Vish Viswanathan] [2 years—12/4/08]
- 264 CombiMatrix Corporation
IPP
45934
“Microfluidic (Lab-On-a-Chip) PCR Array Cartridge for Biological Screening in a Hand-held Device”
Contributions: PNNL = \$1,370,000; CombiMatrix = \$1,447,743 [2 years—11/8/08]

[Evguena Rainina)

- 11/8/06
- 265 Ford Motor Company
52195
1/29/07
- 266 Western-Ag. Resource, Inc.
IPP
49479
12/28/06
- 267 IsoRay Medical Corporation
IPP
51682
51731
5/2/07 (PLA 1)
- 269 UOP LLC
52669
1/3/07
- 270 Campbell Applied Physics
IPP
50919 Master Project No.
50996 (US)/50973 (Russian)
1/31/2007
- “Deactivation Mechanisms of Base Metal/Zeolite Urea Selective Catalytic Reduction Materials”
Contributions: PNNL = \$800K over three year period; Ford = \$552,000 over three year period
[Chuck Peden] **[3 years—January 29, 2010]**
- “Pesticide and Biological Control Agents for Improved Crop Production”
Contributions: PNNL = \$1000K over 3 years; Western-Ag = \$1105K over 3 years.
[Ray Reilly] **[3 years—12/28/09]**
- PLA 1 - “Development and Demonstration of Cs-131 Production and Separation Technology”
Contributions: PNNL = \$576K over 2 years; IsoRay = \$576K over 2 years
[Ron Nesse] **[2 years—5/2/09]**
- “Hydrogenolysis of Glycerol to Propylene Glycol”
Contributions: PNNL = \$800K over 18 months; UOP = \$400K over 18 months years
[John Holladay] **[18 months—July 3, 2008]**
- “Development of a Commercial Plasma Chemical Reactor in the Ukraine”
Contributions: PNNL = \$1,000,000 over 2 years; Campbell Applied Physics = \$1,220,000 over 2 years
[Nancy Moore] **[2 years—January 31, 2009]**