

Appendix-A

Thesis related publication till September, 2018

1. Dey SK, SK Middha, T Usha, BK Brahma and AK Goyal (2015). *In vitro* antioxidant profiling of *Bambusa tulda* Roxb. aqueous methanolic leaf extract growing in the forests of Kokrajhar District, BTAD, Assam, India. *International Journal of Fundamental and Applied Sciences*. 4(3): 81-86. (UGC List Serial No. 63341).
2. Dey SK, SK Middha, T Usha, BK Brahma and AK Goyal (2018). Antidiabetic activity of giant grass *Bambusa tulda*. *Bangladesh Journal Pharmacology*. 13: 134-136. (UGC List Serial No. 1852)
3. Dey SK, BK Brahma and AK Goyal (2018). GC-MS profiling of phytochemicals from hydromethanolic fraction of *Bambusa tulda* leaf: a potential candidate for anti-diabetic activity. *International Journal of Life Sciences Research*. 6(3): 382-388. (UGC List Serial No. 44761)

Appendix-B

Seminar Presentation till September, 2018

1. Presentation in World Bamboo Day, on the title-**GC-MS analysis of bioactive compound found in methanolic extract of *Bambusa tulda* leaf**, held at Bamboo Technology, Department of Biotechnology, Bodoland University on 18th September,2016.
2. Presentation in ASSET, CIT, on the title-**Phytoconstituents and antioxidative potential of hydromethanolic extract of *Bambusa tulda* leaf found in Kokrajhar district, BTAD, Assam, India**, held at CIT, Kokrajhar on 9th-11th March, 2018.

Appendix-C

Chemicals and buffers used for antioxidant profiling

Solvents:

1. Methanol (Merck India, Cat# 60600905001730)
2. Acetone (Merck India, Cat# 60001405001730)
3. Double distilled water

Standards:

1. Gallic acid (Himedia, Cat# RM233)
2. Quercetin (Himedia, Cat# RM6191)
3. Ascorbic acid (Himedia, Cat# CMS1014)
4. Catechin (Sigma, Cat#C0567)

Total Phenol:

1. Folin Ciocalteu's reagents (SRL, Cat# 062015)
2. Sodium Carbonate (Merck India, Cat# 61778705001730) (20%)

Total Flavonoid:

1. Sodium Nitrite (Himedia, Cat# RM417) (5%)
2. Aluminium Chloride (Sd Fine, Cat#) (10%)
3. Sodium hydroxide (Merck India, Cat# 6184305001730) (1mM)

Total Flavonol:

1. Aluminium Chloride (Sd Fine, Cat#) (2%)
2. Sodium acetate (Sigma, Cat# S9513) (5%)

Total Proanthocyanidin:

1. Vanillin (Himedia, Cat# RM616) (4%)
2. Hydrochloric acid (Merck India, Cat# 61762505001730)

DPPH scavenging activity:

1. DPPH (Himedia, Cat# RM2798)
2. Methanol (Merck India, Cat# 60600905001730)

Ferrous reducing power assay:

1. Phosphate buffer (0.2M) pH 6.6
Potassium dihydrogen phosphate (Merck India, Cat# 60487305001730)
Dipotassium hydrogen phosphate (Merck India, Cat#61788005001730)
2. Potassium ferrocyanide (Merck India, Cat# 61843605001730) (1%)
3. Trichloro acetic acid (Himedia, Cat# RM7570) (10%)
4. Ferric chloride (Himedia, Cat# RM1379) (0.1%)

Hydrogen peroxide scavenging activity:

1. Hydrogen peroxide (Merck India, Cat# 61765305001730) (2mM)
2. Phosphate buffer (pH 7.4)
Potassium dihydrogen phosphate (Merck India, Cat#60487305001730)

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Potassium hydroxide (Merck India, Cat#60503305001730)

In vivo testing:

1. Alloxan (2,4,5,6-tetraoxypyrimidine; 2,4,5,6- pyrimidinetetrone) (Sigma, Cat#A7413)
2. Phosphate buffer (50mM) (pH 7.0)
3. EDTA (0.1 mM)
4. NADPH (1.5 mM) (Sigma, Cat# N5130)
5. Glutathione (GSH) (0.01 mM) (Sigma, Cat#G4251)
6. Glutathione Reductase (0.24 U) (Sigma, Cat#G3664)
7. t-butyl hydro-peroxide (12mM)
8. Carbonate buffer (0.05M)
9. 30mM epinephrine (Sigma, Cat#E4250) in 0.05% acetic acid (Merck India, Cat#60006305001730)
10. 1, 1, 3, 3- tetramethoxy propane (Sigma, Cat#108383)
11. SDS (sodium dodecyl sulfate) (Sigma, Cat# 436143) (8.1%)
12. 20% acetic acid (Merck India, Cat#60006305001730)
13. 0.6% thiobarbituric acid (Sigma, Cat#T5500)
14. Butanol
15. Pyridine (Sigma, Cat# 270970)
16. Glibenclamide

Appendix-D

Equipments used

Automatic tissue processor (KD-TS3A, KEDEE)	Model: PBU-6D)
Balance (SHIMADZU, AY220 MAX)	Rotary microtome (Leica RM2125 RTS)
Binocular Microscope (Labomed Lx500)	Soxhlet apparatus (BOROSIL)
Biospectrometer (Version 1.0.8 double beam; ELICO BL222)	UV-VIS Spectrophotometer-117 (Systronics India Ltd)
Centrifuge (RV/FM, super spin, Plastocraft, India)	Water bath incubator shaker (Remi Model No.KWBS-2).
Deep freeze (White whale, WF-3046KSS)	
ELISA (Thermo Scientific Multiskan GO)	
Hot air oven (REMI CIS-24 PLUS)	
GC-MS, (Norwalk, CTO6859, USA)	
Lyophiliser (Telstar Lyoquest Freeze Dryer)	
Magnetic stirrer (Remi 5MLH)	
Mixer grinder (Bajaj Rex 500)	
Rotary evaporator (Superfit ROTA VAP	