



## Article

Cellular Cytotoxicity and Oxidative Potential of Recurrent Molds of the Genus *Aspergillus* Series *Versicolores*Antoine G ry <sup>1</sup>, Charlie Lepetit <sup>1,2</sup>, Natacha Heutte <sup>3</sup>, Virginie S guin <sup>1</sup>, Julie Bonhomme <sup>1,2</sup> and David Garon <sup>1,\*</sup><sup>1</sup> ToxEMAC-ABTE, Centre F. Baclesse, Unicaen and Unirouen, Normandie University, 14000 Caen, France; antoine.gery@unicaen.fr (A.G.); charlie.lepetit@gmail.com (C.L.); virginie.seguin@unicaen.fr (V.S.); bonhomme-j@chu-caen.fr (J.B.)<sup>2</sup> Service de Microbiologie, Centre Hospitalier Universitaire de Caen, 14000 Caen, France<sup>3</sup> CETAPS, UFR Sciences et Techniques des Activit s Physiques et Sportives Unirouen, Normandie University, 76000 Rouen, France; natacha.heutte@univ-rouen.fr

\* Correspondence: david.garon@unicaen.fr

## Supplementary Materials

Table S1. *BenA* gene sequences of the isolates used in this study.

Species	Strain	Sequence
<i>Aspergillus amoenus</i>	CBS245.65	CgGcgtGGCcAAGAcGAAGTTGTCGGGAcGGAAGAGCTG ACCGAAGGGACCGGCACGGACGGCGTCCATAGTACCG GGCTCGAGATCGACGAGAACGGCACGGGGAACGTACT TGTTGCCGCTGGCCTCGTTGAAGTAGACGTTTCATACGCT CGAGCTGGAGGTCGGAGGTACCATTGTAAGTGTATTAT ATCAGGGGTTGTGTTCCGTCGTGTTTTGATCGAGTCCTG GACGGGTTGTACTCACACACCGGAGCCATCAAGGCCGT GCTCGCCGGAGATGGTCTGCCTATAGGGTCGTTAGCAA TAAGCACCAAAGGAAATACCATCTGAAATGGATGAAA TTTTCGACGCACCAGAAAGCAGCACCGatattgGTTaCca
	HAB06	CgGacTGGCcAAGacgAAGTTGTCGGGACGGAAGAGCTG ACCGAAGGGACCGGCACGGACGGCGTCCATAGTACCG GGCTCGAGATCGACGAGAACGGCACGGGGAACGTACT TGTTGCCGCTGGCCTCGTTGAAGTAGACGTTTCATACGCT CGAGCTGGAGGTCGGAGGTACCATTGTAAGTGTATTAT ATCAGGGGTTGTGTTCCGTCGTGTTTTGATCGAGTCCTG GACGGGTTGTACTCACACACCGGAGCCATCAAGGCCGT GCTCGCCGGAGATGGTCTGCCTATAGGGTCGTTAGCAA TAAGCACCAAAGGAAATACCATCTGAAATGGATGAAA TTTTCGACGCACCAGAAAGCAGCACCGatttGGTTaCca
	HOSP150313_5_98	acGAAGTTGTCGGGAcGGAAGCTGACCGAAGGGACC GGCACGGACAGCGTCCATGGTACCGGGCTCGAGATCG ACGAGGACGGCACGAGGAACGTACTTGTGCCGCTGG CTTCGTTGAAGTAGACGTTTCATACGCTCGAGCTGGAGG TCGGAGGTACCATTGTAAGTGCATTATATCAGGGGTTGT GTTCTGTCTCGTGTGTTGCTCGAGTCCTGGACGGGTTGT ACTCACACACCGGAGCCATCGAGGCCGTGCTACCGG AGATGGTCTGCCTATAGAGTCGTTAGCAAAAAGCACG GAAGGAAATACCATCTGAAATGGATGAAATTTTCGACG CACCAGAAAGCAGCACCGATtGGTTACCa
<i>Aspergillus creber</i>	HOSP050413_5_135	caagacgAAGTTGTCGGGAcGGAAGCTGACCGAAGGG ACCGGCACGGACAGCGTCCATGGTACCGGGCTCGAGA TCGACGAGGACGGCACGAGGAACGTACTTGTGCCGCT GGCTTCGTTGAAGTAGACGTTTCATACGCTCGAGCTGGA GGTCGGAGGTACCATTGTAAGTGCATTATATCAGGGGT

	<p>TGTGTTCTGTCTCGTGTTTTGCTCGAGTCCTGGACGGGTT  GACTCACACACCGGAGCCATCGAGGCCGTGCTCACCG  GAGATGGTCTGCCTATAGAGTCGTTAGCAAAAAAGCAC  GGAAGGAAATACCATCTGAAATGGATGAAATTTTCGAC  GCACCAGAAAGCAGCACCGATTGGTTACCa</p>
08FM2_A49	<p>CgGcgTGGCcAAGAcgAAGTTGTCTGGGAcGGAAAAGCTG  ACCGAAGGGACCGGCACGGACAGCGTCCATGGTACCG  GGCTCGAGATCGACGAGGACGGCACGAGGAACGTACT  TGTTGCCGCTGGCCTCGTTGAAGTAGACGTTTCATACGCT  CGAGTTGGAGGTCGGAGGTACCATTGTAAGTGCATTAT  ATCAGGGGTTGTGTTCTGTCTCGTGTTTTGCTCGAGTCCT  GGACGGGTTGTACTCACACACCGGAGCCATCGAGGCC  GTGCTCACCGGAGATGGTCTGCCTATAGAGTCGTTAGC  AAAAAAGCACGGAAGGAAATACCATCTGAAATGGATG  AAATTTTCGACGCACCAGAAAGCAGCACCGAttGGTTa  CC</p>
HAB02	<p>tGGCcAAGAcgAAGTTGTCTGGGAcGGAAAAGCTGACCGA  AGGGACCGGCACGGACAGCGTCCATGGTACCGGGCTC  GAGATCGACGAGGACGGCACGAGGAACGTACTTGTG  CCGCTGGCTTCGTTGAAGTAGACGTTTCATACGCTCGAG  CTGGAGGTCGGAGGTACCATTGTAAGTGCATTATATCA  GGGGTTGTGTTCTGTCTCGTGTTTTGCTCGAGTCCTGGA  CGGGTTGTACTCACACACCGGAGCCATCGAGGCCGTGC  TCACCGGAGATGGTCTGCCTATAGAGTCGTTAGCAAAA  AAGCACGGAAGGAAATACCATCTGAAATGGATGAAAT  TTTCGACGCACCAGAAAGCAGCACCGAttGGTTacc</p>
HAB07	<p>TGGCcaAGAcGAAGTTGtCGGGAcGGAAAAGCTGACCGA  AGGGACCGGCACGGACAGCGTCCATGGTACCGGGCTC  GAGATCGACGAGGACGGCACGAGGAACGTACTTGTG  CCGCTGGCTTCGTTGAAGTAGACGTTTCATACGCTCGAG  CTGGAGGTCGGAGGTACCATTGTAAGTGCATTATATCA  GGGGTTGTGTTCTGTCTCGTGTTTTGCTCGAGTCCTGGA  CGGGTTGTACTCACACACCGGAGCCATCGAGGCCGTGC  TCACCGGAGATGGTCTGCCTATAGAGTCGTTAGCAAAA  AAGCACGGAAGGAAATACCATCTGAAATGGATGAAAT  TTTCGACGCACCAGAAAGCAGCACCGAttGGTTacca</p>
HAB32	<p>tGGCcAAGAcgAAGTTGTCTGGGAcGGAAAAGCTGACCGA  AGGGACCGGCACGGACAGCGTCCATGGTACCGGGCTC  GAGATCGACGAGGACGGCACGAGGAACGTACTTGTG  CCGCTGGCTTCGTTGAAGTAGACGTTTCATACGCTCGAG  CTGGAGGTCGGAGGTACCATTGTAAGTGCATTATATCA  GGGGTTGTGTTCTGTCTCGTGTTTTGCTCGAGTCCTGGA  CGGGTTGTACTCACACACCGGAGCCATCGAGGCCGTGC  TCACCGGAGATGGTCTGCCTATAGAGTCGTTAGCAAAA  AAGCACGGAAGGAAATACCATCTGAAATGGATGAAAT  TTTCGACGCACCAGAAAGCAGCACCGAttGGTTACCa</p>
HAB64	<p>AcgAAGTTGTCTGGGAcGGAAAAGCTGACCGAAGGGACC  GGCACGGACAGCGTCCATGGTACCGGGCTCGAGATCG  ACGAGGACGGCACGAGGAACGTACTTGTGCGCGCTGG  CTTCGTTGAAGTAGACGTTTCATACGCTCGAGCTGGAGG  TCGGAGGTACCATTGTAAGTGCATTATATCAGGGGTTGT  GTTCTGTCTCGTGTTTTGCTCGAGTCCTGGACGGGTTGT  ACTCACACACCGGAGCCATCGAGGCCGTGCTACCGG  AGATGGTCTGCCTATAGAGTCGTTAGCAAAAAAGCACG  GAAGGAAATACCATCtGaatGgAtgAaATTTtCgACGCAC  CagAaAGCAGCaccgAt</p>

<i>Aspergillus fructus</i>	3030204738_C1	TGGccaagAcgAAGTTGtCGGGaCGGAAGAGCTGAcCGAA GGGACCGGCACGGACAGCGTCCATAGTACCGGGCTCG AGATCGACGAGAACGGCACGGGGAACGTACTTGTTCG CGCTGGCCTCGTTGAAGTAGACGTTTCATACGCTCGAGC TGGAGGTTCGGAGGTACCATTGTAAGTGCATTATATCAG GGGTTGTGTTTCGGTTCGTGCGTGTTCGATCGAGTCTTGG ACGGGTTGTACTCACACACCGGAGCCATCAAGGCCGTG CTCGCCGGAGATGGTCTGCCTATAGGGTTCGTTAGCAAA AAGCACCAAAGGAAATACCATCTGAAATGGATGAAAT TTTCGACGCACCAGAAAGCAGCACCGATTGTTTaccac GgT
	HAB01	CgGacTGGCcAaGAcGAAGTTGTTCGGGacGGAAAAGCTGA CCGAAGGGACCGGCACGGACAGCGTCCATGGTACCGG GCTCGAGATCGACGAGGACGGCACGAGGAACGTACTT GTTGCCGCTGGCCTCGTTGAAGTAGACGTTTCATACGCTC GAGCTGGAGGTTCGGAGGTACCATTGTAAGTGCATTATA TCAGGGGATGTGTTCTGTCTCGTGTTCGATCGAGTCTT GGACGGGTTGTACTCACACACCGGAGCCATCGAGGCC GTGCTCACCGGAGATGGTCTGCCTATAGAGTCGTTAGC AAAAAGCACGAAAGGAGATACCATCTGAAATGGATGA AATTTTCGACGCACCAGAAAGCAGCACCGAttgGTTaCc
<i>Aspergillus jensenii</i>	9041799386_C4	GacTGGCcAAGacgAAGTTGTTCGGGAcGGAAAAGCTGACC GAAGGGACCGGCACGGACAGCGTCCATGGTACCGGGC TCGAGATCGACGAGGACGGCACGAGGAACGTACTTGT TGCCGCTGGCCTCGTTGAAGTAGACGTTTCATACGCTCG AGCTGGAGGTTCGGAGGTACCATTGTAAGTGCATTATAT CAGGGGATGTGTTCTGTCTCGTGTTCGATCGAGTCTTG GACGGGTTGTACTCACACACCGGAGCCATCGAGGCCGT GCTCACCGGAGATGGTCTGCCTATAGAGTCGTTAGCAA AAAGCACGAAAGGAGATACCATCTGAAATGGATGAAA TTTTTCGACGCACCAGAAAGCAGCACCGATtGGTTACCa
	4070377575_C6	tGgcaAGAcGAAGTTGTTCGGGAcGGAAAAGCTGACCGAA GGGACCGGCACGGACAGCGTCCATGGTACCGGGCTCG AGATCGACGAGGACGGCACGAGGAACGTACTTGTTCG CGCTGGCCTCGTTGAAGTAGACGTTTCATACGCTCGAGC TGGAGGTTCGGAGGTACCATTGTAAGTGCATTATATCAG GGGATGTGTTCTGTCTCGTGTTCGATCGAGTCTTGGAC GGGTTGTACTCACACACCGGAGCCATCGAGGCCGTGCT CACCGGAGATGGTCTGCCTATAGAGTCGTTAGCAAAAA GCACGAAAGGAGATACCATCTGAAATGGATGAAATTTT CGACGCACCAGAAAGCAGCACCGATTGTTTACCa
<i>Aspergillus protuberus</i>	HOSP050413_4_129	tggccAAaGAcgAAGTTGTTCGGGAcGGAAGAGCTGACCGA AGGGACCGGCACGGACAGCATCCATAGTACCGGGCTC GAGATCGACGAGAACGGCACGGGGAACGTACTTGTTCG CCGCTGGCCTCGTTGAAGTAGACGTTTCATACGCTCGAG CTGGAGGTTCGGAGGTACCATTGTAAGTGCATTATATCA GGGTTGTGTTCTGTCTCGTGTTCGATCGAGTCTTGGACG GGTTGTACTCACACACCGGAGCCATCAAGGCCGTGCTC GCCGGAGATGGTCTGCCTATAGGGTTCGTTAGCAAAAA CACGAAAAGAAATACCATCTGAAATGGATGAAATTTTC GACGCACCAGAAAGCAGCACCGATTGTTTACCa
<i>Aspergillus puulaauensis</i>	0102634450_C10	ggCccttgcCacCGGAaTGGCCAAGACGAAGTTGTTCGGAC GGAAGAGCTGACCGAAGGGACCGGCACGGACAGCGTC CATGGTACCGGGCTCGAGATCGACAAGGACGGCACGA GGAACGTACTTGTTCGGCTGGCCTCGTTGAAGTAGAC GTTTCATACGCTCGAGCTGGAGGTTCGGAGGTACCATTGT AACTGCATTATATCAGGGGATGTGTTCTGTCTCGTGTTC

<i>Aspergillus sydowii</i>		TGATCGAGTCCTGGACGGGTTGTA CTACACACCCGGAG CCATCGAGGCCGTGCTCACCGGAGATGGTCTGCCTATA GAGTCGTTAGCAAAAAGCACGAAAGGAAATACCATCT GAAATGGATGAAATTTTCGACGCACCAGAAAGCAGCA CCGATTGGTTACCAaa
	4040348777_C2	tGGCcAAGacgAAGTTGtCGGGacGGAAGAGCTGAcCGAA GGGACCGGCACGGACAGCGTCCATAGTACCAGGCTCG AGATCGACGAGGACGGCACGGGGAACGTACTTGTTC CGCTGGCCTCGTTGAAGTAGACGTTTCATACGCTCGAGC TGGAGGTCGGAGGTACCATTGTA ACTGTATTATATCAG GGGCTGTGTTCTGTCTGTGTTTGGATCGAGTCCTGGACGG GCTGTACTCACACACCGGAGCCATCGAGGCCGTGCTCA CCGGAGATGGTCTGCCTATAGAGTCGTTAGTAAAAATC ACGAAAACAAAGACCATCTGCAATGGATGAAATTTTC GACGCACCAGAAAGCAGCACCGATTGGTTaCca
	8051266672_C3	gGccAAGacgAAGTTGtCGGGacGGAAGAGCTGAcCGAAG GGACCGGCACGGACAGCGTCCATAGTACCAGGCTCGA GATCGACGAGGACGGCACGGGGAACGTACTTGTTC GCTGGCCTCGTTGAAGTAGACGTTTCATACGCTCGAGCT GGAGGTCGGAGGTACCATTGTA ACTGTATTATATCAGG GGCTGTGTTCTGTCTGTGTTTGGATCGAGTCCTGGACGGG CTGTACTCACACACCGGAGCCATCGAGGCCGTGCTCAC CGGAGATGGTCTGCCTATAGAGTCGTTAGTAAAAATCA CGAAAGCAAAGACCATCTGCAATGGATGAAATTTTCGA CGCACCAGAAAGCAGCACCGATTGGTTacc
	9071870945_C5	AcgAagTTGtCGGGacGGAAGAGCTGACCGAAGGGACCG GCACGGACAGCGTCCATAGTACCAGGCTCGAGATCGA CGAGGACGGCACGGGGAACGTACTTGTTCGCCGTGGCC TCGTTGAAGTAGACGTTTCATACGCTCGAGCTGGAGGTC GGAGGTACCATTGTA ACTGTATTATATCAGGGGCTGTG TTCTGTCTGTGTTTGGATCGAGTCCTGGACGGGCTGTACT CACACACCGGAGCCATCGAGGCCGTGCTCACCGGAGA TGGTCTGCCTATAGAGTCGTTAGTAAAAATCACGAAAG CAAAGACCATCTGCAATGgATGAAATTTTCgACGCACC AgAAAGCAGCACCGATTGgTTaCCaAca
	0062415698_C7	acgAAGTTGtCGGGacGGAAGAGCTGACCGAAGGGACCG GCACGGACAGCGTCCATAGTACCAGGCTCGAGATCGA CGAGGACGGCACGGGGAACGTACTTGTTCGCCGTGGCC TCGTTGAAGTAGACGTTTCATACGCTCGAGCTGGAGGTC GGAGGTACCATTGTA ACTGTATTATATCAGGGGCTGTG TTCTGTCTGTGTTTGGATCGAGTCCTGGACGGGCTGTACT CACACACCGGAGCCATCGAGGCCGTGCTCACCGGAGA TGGTCTGCCTATAGAGTCGTTAGTAAAAATCACGAAAG CAAAGACCATCTGCAATGGATGAAATTTTCGACGCACC AGAAAGCAGCACCGATTGGTTACca
	0062445522_C8	tgGccaAGacgAgTTGTCGGGacGGAAGAGCTGACCGAAGG GACCGGCACGGACAGCGTCCATAGTACCAGGCTCGAG ATCGACGAGGACGGCACGGGGAACGTACTTGTTCGCC CTGGCCTCGTTGAAGTAGACGTTTCATACGCTCGAGCTG GAGGTCGGAGGTACCATTGTA ACTGTATTATATCAGGG GCTGTGTTCTGTCTGTGTTTGGATCGAGTCCTGGACGGGC TGTA CTACACACCGGAGCCATCGAGGCCGTGCTCACC GGAGATGGTCTGCCTATAGAGTCGTTAGTAAAAATCAC GAAAACAAAGACCATCTGCAATGGATGAAATTTTCGA CGCACCAGAAAGCAGCACCGATTGGTTacca

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GATTGTTACcaaacttttttggttt

## List of reagents and sources

Reagent/Material	Model/Reference	Provided by
5,5'-dithiobis-(2-nitrobenzoic acid) (DTNB) (Ellman's reagent)	22582	Thermo Fisher Scientific, Waltham, MA, USA
Acetic acid glacial, ReagentPlus®, ≥99%	A6283	Sigma-Aldrich - Merck, Darmstadt, Germany
Bt2a/Bt2b primers	6422632/6422633	Eurogentec, Seraing, Belgique
Chloramphenicol	0019	Cooper, Melun, France
Chloroform	ICN19400280	MP Biomedicals - Thermo Fisher Scientific, Waltham, MA, USA
Copper(II) sulfate pentahydrate ACS reagent, ≥98.0%	209198	Sigma-Aldrich - Merck, Darmstadt, Germany
Cyclonic biocollector	Coriolis® µ	Bertin Technologies, Montigny-le-Bretonneux, France
Cytoflex S hemocytometer	B96621	Beckman Coulter, Brea, CA, USA
Dimethyl Sulfoxide (DMSO)	P60-36720100	Pan Biotech - Dominique Dutscher, Tourgéville, France
Dithiotreitol (DTT)	R0861	Thermo Fisher Scientific, Waltham, MA, USA
Dulbecco's Modified Eagle Medium	11880028	Gibco - Thermo Fisher Scientific, Waltham, MA, USA
Dulbecco's Phosphate Buffer Solution (10X)	14200091	Gibco - Thermo Fisher Scientific, Waltham, MA, USA
Ethyl acetate for HPLC, 99.9%	650528	Sigma-Aldrich - Merck, Darmstadt, Germany
Fetal Bovine Serum, US origin - 100 mL	P30-1401	Pan Biotech - Dominique Dutscher, Tourgéville, France
Gentamicin solution 10 mg/mL	G1272	Sigma-Aldrich - Merck, Darmstadt, Germany
Glycerol	453755	Carlo Erba, Val-de-Reuil, France
Hybrid Multi-Mode Reader spectrophotometer	Synergy H1	BioTek - Agilent Technologies, Santa Clara, Californie, États-Unis
KOVA™ Glasstic™ Slide 10	11917967	KOVA - Thermo Fisher Scientific, Waltham, MA, USA
MALDI-TOF mass spectrometry	Microflex	Bruker, Bremen, Germany
NanoDrop 2000 spectrophotometer	ND-2000	Thermo Fisher Scientific, Waltham, MA, USA
NucleoSpin gDNA Clean-up kit	740230.5	Macherey-Nagel, Duren, Germany
Nucleospin™ Plant II kit	740770.5	Macherey-Nagel, Duren, Germany
Penicilline-streptomycin (10 000 U/ml)	15140148	Gibco - Thermo Fisher Scientific, Waltham, MA, USA
Proteinase K	V3021	Promega, Madison, WI, USA
PTFE filters - 5 µm porosity	10068020	Sartorius - Thermo Fisher Scientific, Waltham, MA, USA
Sabouraud dextrose agar with chloramphenicol and gentamicin	56594	Bio-Rad, Marnes-la-Coquette, France
Sabouraud dextrose agar with chloramphenicol, gentamicin and cycloheximide	56596	Bio-Rad, Marnes-la-Coquette, France
SpeedVac Plus concentrator	SC210A-230	Savant - Thermo Fisher Scientific, Waltham, MA, USA
Sulforhodamine B	230162	Sigma-Aldrich - Merck, Darmstadt, Germany
Syringe tip filter - 0.22 µm porosity	CH2225-NP	Thermo Fisher Scientific, Waltham, MA, USA
Trichloroacetic acid ACS reagent, ≥99.0%	T6399	Sigma-Aldrich - Merck, Darmstadt, Germany
TRIS base buffer pH 10.5	T6455	Sigma-Aldrich - Merck, Darmstadt, Germany
Trypsin 0.05%	11580626	Gibco - Thermo Fisher Scientific, Waltham, MA, USA
Trypsin 0.25%	P10-019100	Pan Biotech GmbH, Aidenbach, Germany
Tween 80	P4780	Sigma-Aldrich - Merck, Darmstadt, Germany