

HUMAN RNA METHYLTRANSFERASE METTL16 AFFECTS MULTIPLE CELL PROCESSES
THROUGH DIFFERENTIAL FUNCTION OF ITS DOMAINS

By

Emily Satterwhite Talic

APPROVED BY:

Director of Dissertation

DocuSigned by:

Kyle D. Mansfield

C2A63DBA2AC5482...

Kyle D. Mansfield, PhD

Committee Member

DocuSigned by:

Brett D. Keiper

073EEC030715474...

Brett D. Keiper, PhD

Committee Member

DocuSigned by:

Tonya Zeczycki

3035EC9E10AF446...

Tonya Zeczycki, PhD

Committee Member

DocuSigned by:

Jessica M. Ellis

BD00D55107FE491...

Jessica M. Ellis, PhD

Committee Member

Type committee member five name and earned degree HERE

Committee Member

Type committee member six name and earned degree HERE

Chair of the Department of
Biochemistry & Molecular Biology

DocuSigned by:

John Cavanagh

DDF10B235CFB453...

John Cavanagh, PhD

Interim Dean of the Graduate School

DocuSigned by:

Kathleen T. Cox

24D0CF41A1A94ED...

Kathleen T Cox, PhD

Certificate Of Completion

Envelope Id: E0AD7725F9C4411EABF8B399D160258B

Status: Completed

Subject: DocuSign: Dissertation Signature Page Emily Satterwhite Talic

Source Envelope:

Document Pages: 1

Signatures: 6

Certificate Pages: 5

Initials: 0

AutoNav: Enabled

Envelope Stamping: Enabled

Time Zone: (UTC-05:00) Eastern Time (US & Canada)

Envelope Originator:

Graduate School DocuSign

209 Cotanche St.

MS# 229

Greenville, NC 27858

GRADSCHOOLDocusign@ecu.edu

IP Address: 45.25.111.119

Record Tracking

Status: Original

10/26/2022 12:25:21 PM

Holder: Graduate School DocuSign

GRADSCHOOLDocusign@ecu.edu

Location: DocuSign

Signer Events**Signature****Timestamp**

Emily Satterwhite Talic

satterwhite18@students.ecu.edu

Completed

Sent: 10/26/2022 12:25:21 PM

Viewed: 10/26/2022 12:25:30 PM

Security Level:

DocuSign.email

ID: 1

10/26/2022 12:25:24 PM

Using IP Address: 45.25.111.119

Signed: 10/26/2022 12:26:46 PM

Electronic Record and Signature Disclosure:

Accepted: 10/26/2022 12:16:34 PM

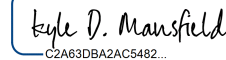
ID: a53da123-7c0e-44bc-a596-9698935355f6

Kyle D. Mansfield

mansfieldk@ecu.edu

Security Level: Email, Account Authentication
(None)

DocuSigned by:


C2A63DBA2AC5482...

Sent: 10/26/2022 12:26:49 PM

Viewed: 10/26/2022 12:27:23 PM

Signed: 10/26/2022 12:27:38 PM

Signature Adoption: Pre-selected Style

Using IP Address: 150.216.193.166

Electronic Record and Signature Disclosure:

Accepted: 10/26/2022 12:27:23 PM

ID: 247fc351-85a4-44bb-88dd-a3687d8bc6c9

Brett Keiper

keiperb@ecu.edu

Associate Professor

HSH BSOM Biochem and Molecular

Security Level: Email, Account Authentication
(None)

DocuSigned by:


075EEC034715474...

Sent: 10/26/2022 12:27:40 PM

Viewed: 10/30/2022 5:13:35 PM

Signed: 10/30/2022 5:14:00 PM

Signature Adoption: Uploaded Signature Image

Using IP Address: 75.110.31.176

Electronic Record and Signature Disclosure:

Not Offered via DocuSign

Tonya Zeczycki

zeczyckit@ecu.edu

Security Level: Email, Account Authentication
(None)

DocuSigned by:


9835EC3E18AF446...

Sent: 10/26/2022 12:27:40 PM

Viewed: 10/26/2022 12:28:03 PM

Signed: 10/26/2022 12:28:22 PM

Signature Adoption: Pre-selected Style

Using IP Address: 150.216.224.81

Electronic Record and Signature Disclosure:

Accepted: 10/26/2022 12:28:03 PM

ID: 340af2a8-f72a-45c8-a9ef-479a8f10c450

Signer Events	Signature	Timestamp
<p>Jessica M. Ellis ellisje18@ecu.edu Advisor, Assistant Professor Security Level: Email, Account Authentication (None)</p>	<p>DocuSigned by:  DD08D551C7FE491...</p> <p>Signature Adoption: Pre-selected Style Using IP Address: 150.216.213.137</p>	<p>Sent: 10/26/2022 12:27:41 PM Viewed: 10/26/2022 2:51:20 PM Signed: 10/26/2022 2:51:28 PM</p>

Electronic Record and Signature Disclosure:
Accepted: 10/26/2022 2:51:20 PM
ID: 29079a6c-341f-4715-a664-3d6778e944f0

John Cavanagh
cavanaghj19@ecu.edu
Interim Associate Dean for Research, Professor &
Chair of Biochemistry and Molecular Biology
Brody School of Medicine, East Carolina University
Security Level: Email, Account Authentication (None)

DocuSigned by:


DDF10B255CFB453...

Signature Adoption: Pre-selected Style
Using IP Address: 150.216.207.62

Sent: 10/30/2022 5:14:03 PM
Viewed: 10/31/2022 7:46:06 AM
Signed: 10/31/2022 7:46:19 AM

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

Kathleen Cox
bassm@ecu.edu
Admin Support Associate
AAH Graduate School
Signing Group: Grad School
Security Level: Email, Account Authentication (None)

DocuSigned by:

24D0CF41A1A94FD...

Signature Adoption: Uploaded Signature Image
Using IP Address: 150.216.230.188

Sent: 10/31/2022 7:46:22 AM
Viewed: 10/31/2022 10:00:31 AM
Signed: 10/31/2022 10:03:33 AM

Electronic Record and Signature Disclosure:
Accepted: 3/3/2022 2:30:30 PM
ID: 346e6883-2a91-4baf-b78d-f03bf22cc351

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Witness Events	Signature	Timestamp
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	10/26/2022 12:25:21 PM
Certified Delivered	Security Checked	10/31/2022 10:00:31 AM
Signing Complete	Security Checked	10/31/2022 10:03:33 AM
Completed	Security Checked	10/31/2022 10:03:33 AM
Payment Events	Status	Timestamps
Electronic Record and Signature Disclosure		

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, East Carolina University* (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through your DocuSign, Inc. (DocuSign) Express user account. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to these terms and conditions, please confirm your agreement by clicking the 'I agree' button at the bottom of this document.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. For such copies, as long as you are an authorized user of the DocuSign system you will have the ability to download and print any documents we send to you through your DocuSign user account for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a \$0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. To indicate to us that you are changing your mind, you must withdraw your consent using the DocuSign 'Withdraw Consent' form on the signing page of your DocuSign account. This will indicate to us that you have withdrawn your consent to receive required notices and disclosures electronically from us and you will no longer be able to use your DocuSign Express user account to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through your DocuSign user account all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact East Carolina University*:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:

To contact us by email send messages to: docusign@ecu.edu

To advise East Carolina University* of your new e-mail address

To let us know of a change in your e-mail address where we should send notices and disclosures electronically to you, you must send an email message to us at docusign@ecu.edu and in the body of such request you must state: your previous e-mail address, your new e-mail address. We do not require any other information from you to change your email address..

In addition, you must notify DocuSign, Inc to arrange for your new email address to be reflected in your DocuSign account by following the process for changing e-mail in DocuSign.

To request paper copies from East Carolina University*

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an e-mail to docusign@ecu.edu and in the body of such request you must state your e-mail address, full name, US Postal address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with East Carolina University*

To inform us that you no longer want to receive future notices and disclosures in electronic format you may:

- i. decline to sign a document from within your DocuSign account, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;
- ii. send us an e-mail to docusign@ecu.edu and in the body of such request you must state your e-mail, full name, US Postal Address, telephone number, and account number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

Operating Systems:	Windows2000? or WindowsXP?
Browsers (for SENDERS):	Internet Explorer 6.0? or above
Browsers (for SIGNERS):	Internet Explorer 6.0?, Mozilla FireFox 1.0, NetScape 7.2 (or above)
Email:	Access to a valid email account
Screen Resolution:	800 x 600 minimum
Enabled Security Settings:	<ul style="list-style-type: none">•Allow per session cookies•Users accessing the internet behind a Proxy Server must enable HTTP 1.1 settings via proxy connection

** These minimum requirements are subject to change. If these requirements change, we will provide you with an email message at the email address we have on file for you at that time providing you with the revised hardware and software requirements, at which time you will have the right to withdraw your consent.

Acknowledging your access and consent to receive materials electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please verify that you were able to read this electronic disclosure and that you also were able to print on paper or electronically save this page for your future reference and access or that you were able to e-mail this disclosure and consent to an address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format on the terms and conditions described above, please let us know by clicking the 'I agree' button below.

By checking the 'I Agree' box, I confirm that:

- I can access and read this Electronic CONSENT TO ELECTRONIC RECEIPT OF ELECTRONIC RECORD AND SIGNATURE DISCLOSURES document; and
- I can print on paper the disclosure or save or send the disclosure to a place where I can print it, for future reference and access; and
- Until or unless I notify East Carolina University* as described above, I consent to receive from exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to me by East Carolina University* during the course of my relationship with you.